



CITY OF CARLISLE.

REPORT

ON THE

Sanitary Condition of the City of Carlisle
FOR THE YEAR 1925,

BY

JOSEPH BEARD,

F.R.S. (Edin.), F.R.C.S. (Edin.),
L.R.C.P. (Lond.), D.P.H. (Cantab.), etc.,
(Of Gray's Inn, Barrister-at-Law).

Medical Officer of Health,
School Medical Officer,
Chief Tuberculosis Officer, &c.

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PUBLIC HEALTH STAFF

including all who are employed in work connected with the public health, whether under the Health, Maternity and Child Welfare, or the Education Committees:—

Medical Officer of Health, School	JOSEPH BEARD, F.R.C.S., D.P.H.,
Medical Officer, Chief Tuberculosis Officer, &c., &c.	&c., &c.
Assistant Medical Officer of Health, Tuberculosis Officer, and Assistant School Medical Officer	ALLAN SEMPLE, M.B., Ch. B., D.P.H.
Assistant School Medical Officer and Assistant Medical Officer (M. & C. W.)	Miss E. E. BOURNE, M.B., Ch.M., D.P.H.
Assistant Medical Officer (V.D.) (part-time)	ALEX. C. B. MCMURTRIE, M.D., F.R.C.S., D.P.H.
Dental Surgeon (part-time)	WILLIAM TAYLOR, L.D.S.
Veterinary Inspector (part-time)	R. CRAIG ROBINSON, M.R.C.V.S.
Chief Sanitary Inspector, and Inspector under Sale of Food and Drugs Acts and Shops Acts	* C. W. HILL
Assistant Sanitary Inspectors	††* W. HANSON * E. S. BROADHEAD
Health Visitors	Misses H. M. HILL, J. G. SMITH, C. STORDY
Nurse in charge of School Clinic and Tuberculosis Dispensary	Miss M. E. GLOYNE
School Nurses	Misses J. S. GUTHRIE, J. H. BRADEN, M. WOOD
Matron of Maternity Hospital	Miss M. C. WALKER
Clerks	G. E. BARROW, R. F. THOBURN, L. OATES, Misses L. HIND and M. PURDAM
Disinfector	H. PORTER
Superintendent of Public Slaughter-houses	*‡R. T. BLAYLOCK
Public Analyst (part-time)	CYRIL J. H. STOOK, B.Sc., F.I.C., CARLISLE AND DARLINGTON
Bacteriologists (part-time)	THE PUBLIC HEALTH LABORATORY, MANCHESTER (Prof. W. W. C. TOPLEY) AND THE CLINICAL RESEARCH ASSOCIATION, LONDON

* Sanitary Inspectors' Certificate, R.S.I.

† Sanitary Inspectors' Certificate, S.I.A.

‡ Meat Inspectors' Certificate, R.S.I.



To the Chairman and Members of the Health Committee.

Ladies and Gentlemen,

I have the honour to submit the Annual Report on the Health of the City for the year 1925, this being my Eighteenth Annual Report as Medical Officer of Health.

This survey report has been prepared as far as practicable in accordance with the requirements of Circular 648 of the Ministry of Health, of the 10th December, 1925. It will be found to ^{be} more comprehensive and to contain matters of reference which have necessitated considerably more time and labour than usual on the part of all concerned in its preparation.

I am,

Your obedient Servant,

JOSEPH BEARD,

Medical Officer of Health.

Public Health Department,

19 Fisher Street,

Carlisle,

April, 1926.

NATURAL AND SOCIAL CONDITIONS.

Physical Features and General Character.

Carlisle is a city of great antiquity, situated on a gentle eminence in the midst of an extensive tract of fertile country, and is the capital of the beautiful County of Cumberland. It is about 300 miles from London, and is bounded on the north by the Bewcastle Fells and the hills of Dumfriesshire, on the east by the Pennines, and on the south by the Cumbrian mountains, and is open on its west side to the Solway Firth, into which the River Eden flows. It is on the north-western line of communication both by rail and by road from England to Scotland.

The central portion of the City is built on a slight eminence of red sandstone, about 75 feet above Ordnance Datum, whilst the remainder of the City (with the exception of Stanwix, which is partly of hard red sandstone) consists of alluvial land, consequently the lower parts of the City are subject to a high ground water level, with which a humid atmosphere is apt to be associated. The prevailing wind is south-westerly, and the average annual rainfall for the past ten years is 31.74 inches. Two tributaries of the River Eden flow through the City from the south, the River Caldew on the west side of the central portion of the City, and the River Petteril on the east, joining the Eden within the City boundaries.

Social Conditions.

The area is one which has a variety of industries, the chief sources of which are the London Midland & Scottish and the London and North Eastern Railway groups, which have their termini in the City. There are also engineering, printing and lithographic works, textile, dyeing and bleaching works, carpet factories, breweries, tanneries, felt hat works, biscuit and confectionery factories, and smaller miscellaneous trades. An extensive trade is also carried on in cattle and timber. There is a good deal of female labour employed in textile factories, and also in connection with lithographic, biscuit, carpet, sweet, and several other industries.

General Statistics.

Area (acres)	...	...	...	...	4,488
Population (Census, 1921)	...	...	...	...	53,200
Population (1925), Estimate of Registrar-General for Birth-rate	...	...	...	...	55,360
Population (1925), Estimate of Registrar-General for Death-rate	...	...	...	...	55,160
Number of Inhabited Houses (Census, 1921)	...	...	...	...	11,316
Number of Families (Census, 1921)	...	...	...	...	11,742
Rateable Value	...	...	...	...	£325,080
Sum represented by a Penny Rate	...	...	...	...	£1,215

Extracts from Vital Statistics of the Year.

Births—	Total.	M.	F.	
Legitimate	989	502	487	
Illegitimate	56	28	28	
				Birth-rate 18.8
Deaths	748	340	408	
				Death-rate 12.7

Number of women dying in, or in consequence
of, childbirth—

From Sepsis	...	...	...	1
From other causes	...	...	...	2

Deaths of Infants under one year of age per
1,000 births—

Legitimate	...	...	80.9	
Illegitimate	...	...	35.7	
			— Total	78.4

Deaths from Measles (all ages)	...	...	8
,, Whooping Cough (all ages)	...	...	7
,, Diarrhoea (under 2 years of age)	...	...	7

Population.

An estimate of the population at mid-year, 1925, has been supplied to me by the Registrar-General, and is as follows:—for the purpose of the calculation of mortality rates the figure is 55,160, and for the purpose of the calculation of the birth-rate the figure is 55,360; and these figures have been used in making the various calculations in this report.

Births.

The number of births registered during the year was 1,045, a decrease of 71 on the figure for the previous year, and the birth-rate is 18.8 per 1,000 of the population, a decrease of 1.5 on the figure for the year 1924.

The birth-rate for the whole of England and Wales during 1925 was 18.3 per 1,000. The rate for the 105 great towns, to which classification Carlisle belongs, was 18.8 per 1,000, and for the 157 smaller towns of England and Wales 18.3 per 1,000.

Year.	Number of Births Registered.			Per 1,000 of the population
	Males.	Females.	Total.	
1921	679	631	1310	24.6
1922	641	626	1267	23.6
1923	589	592	1181	21.8
1924	548	568	1116	20.3
1925	530	515	1045	18.8

Table showing details of the Births in the several Wards, 1925.

QUARTER ENDED.	STANWIX AND ETTERBY.	RICKERGATE.	AGLIONBY.	GREYSTONE.	ST. NICHOLAS.	CURROCK.	DENTON HOLME.	ST. CUTHBERT'S.	CALDEWATE.	NEWTOWN AND BELLE VUE.	TOTALS FOR CITY.
March 31	13	18	24	27	39	29	29	32	28	25	264
June 30	8	32	19	26	30	31	25	36	43	26	276
September 30 ...	11	35	17	32	17	28	42	28	31	18	259
December 31	15	29	15	25	29	19	32	22	32	28	246
Totals.. ...	47	114	75	110	115	107	128	118	134	97	1045

Illegitimate Births.

The number of illegitimate births registered was 56, or 53.5 per 1,000 of the total births. This shows an increase of 3 illegitimate births upon the figure for 1924.

In 16 instances, or 28.5 per cent. of the total illegitimate births for the year, the mother was not a resident of the City.

The distribution of the illegitimate births among the several wards was as follows:—

	Stanwix and Etterby	Rickergate	Aglionby	Greystone	St. Nicholas	Currock	Denton Holme	S. Cuthbert's	Caldegate	Newtown & Belle Vue	Totals for City
Males	2	3	3	...	3	2	2	2	6	5	28
Females	...	8	...	5	1	6	1	3	3	1	28
Totals	2	11	3	5	4	8	3	5	9	6	56

Deaths.

The total number of deaths registered was 848, as compared with 849 in 1924. 22 deaths occurred of persons belonging to the City in institutions and other places away from Carlisle, while the deaths of 122 persons not belonging to the City occurred in public institutions and other places within the City. Excluding the latter figure, and adding the deaths of Carlisle residents which occurred in other districts, a nett figure of 748 remains, which is equal to a nett death-rate of 13.5 per 1,000 of the estimated population at all ages, against 13.8 per 1,000 in 1924.

The corrected death-rate for the City, which is obtained by multiplying the above nett death-rate of 13.5 per 1,000 by the factor supplied by the Registrar-General, viz., .947, is 12.7 per 1,000 of the estimated population living at all ages.

The death-rate for the whole of England and Wales during 1925 was 12.2 per 1,000. The rate for the 105 great towns, to which classification Carlisle belongs, was 12.2 per 1,000, and for the 157 smaller towns of England and Wales, 11.2 per 1,000.

Table showing details of the corrected Deaths in the Wards, 1925.

Quarter Ended	Stanwix and Esterby	Rickergate	Agilnby	Greystone	St. Nicholas	Currock	Denton Holme	S. Cuthbert's	Caldegate	Newtown & Belle Vue	Totals for City
March 31	10	28	34	21	22	22	20	23	31	19	230
June 30	18	12	26	23	18	15	16	16	19	11	174
September 30 ...	9	11	10	15	10	19	20	11	15	11	131
December 31 ...	9	19	19	23	20	22	29	24	23	20	213
Totals	46	70	89	87	70	78	85	74	88	61	748

Table showing the number of Deaths at all Ages and at several age periods, 1925.

	All Ages.	Under 1 Year.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and up- wards.
No. of Deaths at all ages and at several age periods	748	82	47	20	30	267	302

The following Table shows the diseases causing the largest number of Deaths during 1925, and a comparison with those of 1924, &c.:—

DISEASE.	1924.	1925.	Increase or Decrease	Average No. of Deaths for past 10 yrs.
Pulmonary Tuberculosis & Phthisis	49	49	...	50
Other forms of Tuberculosis ...	20	7	—13	18
Pneumonia	58	35	—23	51
Other Diseases of Respiratory System	57	65	+ 8	58
Measles	3	8	+ 5	9
Influenza	23	21	— 2	34
Whooping Cough	8	7	— 1	8
Diphtheria, Membranous Croup ...	9	2	— 7	8
Disease of Heart and Blood Vessels	159	159	...	160
Rheumatic Fever, Chronic Rheumatism, Rheumatoid Arthritis ..	12	11	—1	7
Cancer and Malignant Disease ...	72	84	+12	68
Diseases of Digestive System other than Diarrhoea and Enteritis ...	33	36	+ 3	26
Diseases of Urinary System ...	21	29	+ 8	29
Diseases of Nervous System ...	86	76	—10	51
Prematurity and Injury at Birth, &c.	43	34	— 9	40
Accidents due to Negligence ..	19	20	+ 1	20
Diarrhoea and Enteritis ...	16	20	+ 4	23

+ Shows an increase in the number of deaths.

— Shows a decrease in the number of deaths.

The following Table sets out the Cause and the Ages at Death

48 persons belonging to the City:—

CAUSE OF DEATH.			NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.									TOTAL DEATHS WHETHER OF "RESIDENTS" OR "NON-RESI- DENTS" IN INSTITUTIONS IN THE DISTRICT.
			All Ages.	Under 1 year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and up- wards	
1	2	3	4	5	6	7	8	9	10	11		
All Causes { Certified ...	725	78	30	16	20	30	85	176	290	275		
{ Uncertified ..	23	4	1	...	...	...	2	4	12	...
Enteric Fever ...	...	...	...	...	...	...	...	...	...	...
Smallpox ...	...	...	...	...	...	...	...	...	...	...
Measles ...	8	...	6	2	...	...	...	...	...	...
Scarlet Fever ...	4	...	...	1	2	...	1	...	...	...
Whooping Cough ...	7	4	2	1	...	...	...	...	...	...
Diphtheria and Croup ...	2	1	...	1	...	...	...	...	...	...
Influenza ...	21	1	2	...	2	...	3	6	7	2		
Dysentery ...	...	...	...	...	...	...	...	...	...	...
Erysipelas ...	...	...	...	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis)	49	...	...	...	3	6	27	10	3	10
Tuberculous Meningitis ...	3	1	1	...	1	...	...	...	...	1
Other Tuberculous Diseases ...	4	1	...	...	...	2	...	...	1	2
Cancer, Malignant Disease ...	84	...	...	...	...	...	4	49	31	38
Rheumatic Fever ...	11	...	...	...	2	4	4	1	...	2
Meningitis ...	8	2	3	1	1	...	1	...	...	2
Organic Heart Disease ...	96	...	...	...	2	1	6	20	67	12
Bronchitis ...	57	5	4	...	...	...	1	11	36	6
Pneumonia (all forms) ...	35	11	6	4	...	2	1	4	7	9		
Other Diseases of Respiratory Organs...	8	...	1	...	...	...	3	3	1	...
Diarrhoea and Enteritis ...	21	7	...	...	...	1	6	5	2	15
Appendicitis and Typhlitis ..	6	...	...	1	...	2	1	...	2	11
Cirrhosis of Liver ...	1	...	...	...	...	...	...	...	1	1
Alcoholism ...	...	...	...	...	...	...	...	...	...	...
Nephritis and Bright's Disease ...	22	...	...	...	...	...	4	7	11	3
Puerperal Fever ...	...	...	...	...	...	...	...	...	...	...
Other Accidents and Diseases of Preg- nancy and Parturition ...	3	...	...	...	...	...	3	...	...	...
Congenital Debility & Malformation, including Premature Birth ...	45	43	1	...	...	...	...	1	...	10
Violent Deaths, excluding Suicide ...	20	1	1	...	4	2	4	4	4	16		
Suicide ...	8	...	...	...	...	1	3	4	...	...
Other Defined Diseases ...	223	5	4	5	3	9	15	54	128	135		
Diseases ill-defined or unknown ...	2	...	...	...	...	...	...	1	1	...
Totals ...	748	82	31	16	20	30	87	180	302	275		
Sub- Entries included above figures	Cerebro-spinal Meningitis ...	...	...	...	...	...	...	...	...	1
	Poliomyelitis ...	...	...	...	...	...	...	...	...	...
	Typhus Fever ..	...	...	...	...	...	...	...	...	...
	Lobar Pneumonia ...	7	...	1	...	1	1	3	1	6		
	Pneumonia not defined ...	6	...	2	1	...	1	...	2	...		

The following Table shows the Vital Statistics for the whole City during 1925 and previous years:—

YEAR.	Registrar-General's Estimate of Population to Middle of each Year	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Uncorrected Number.	Nett.		Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 Year of age		AT ALL AGES.	
			Number.	Rate.					Number.	Rate per 1,000 Nett Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1916 {	49,721 54,097	1103	1103	20.3	850	17.0	93	24	112	101.3	781	15.7
1917 {	59,151 53,064	1117	1120	18.9	826	15.5	101	46	119	106.5	771	14.5
1918 {	60,188 53,717	1033	1037	17.2	921	17.1	120	49	131	126.8	850	15.8
1919 {	57,500 55,198	1066	1078	18.7	778	14.1	112	54	115	107.9	720	13.6
1920 {	57,697 57,397	1425	1417	24.7	785	13.7	117	37	114	80.0	705	12.3
1921	53,200	1310	1298	24.6	818	15.3	85	21	138	105.3	754	14.1
1922	53,490	1267	1267	23.6	864	16.1	101	21	103	81.2	784	14.6
1923	54,010	1181	1171	21.8	797	14.7	91	26	98	82.9	732	13.5
1924	54,910	1116	1123	20.3	849	15.4	103	17	106	94.9	763	13.8
1925 {	* 55,360 + 55,160	1045	1030	18.8	848	15.3	122	22	82	78.4	748	13.5

* For Birth-rate.

† For Death-rate.

The following Public and other Institutions are within the City:—

The Union Workhouse and its Infirmary.
 The Cumberland Infirmary.
 Carlisle Non-Provident Dispensary.
 The Crozier Lodge Isolation Hospital.
 Strathclyde House (Home for Incurables).
 St. Joseph's Home (aged and infirm persons).
 Corporation Dispensary and School Clinic.
 Corporation Maternity Hospital and Clinics.

Birth-rate, Death-rate, and Infantile Mortality in Carlisle since 1891.

Year.	No. of Births.	Birth- rate.	No. of Deaths.	Gross Death- rate.	Infantile Mor- tality.	Average Five Years.		
						Birth- rate.	Death- rate.	Infantile Mortality.
1891	1207	30·8	789	20·1	137	31·8	20·1	142·6
1892	1213	30·5	805	20·2	123			
1893	1389	34·5	868	21·6	178			
1894	1315	32·0	780	19·2	133			
1895	1311	31·4	794	19·4	142			
1896	1246	29·6	753	18·2	137	29·9	19·5	146·6
1897	1324	30·8	811	19·4	134			
1898	1311	30·0	935	22·2	183			
1899	1300	29·4	818	19·2	145			
1900	1354	30·1	807	18·8	134			
1901	1246	27·3	810	17·8	129	26·7	17·9	131·0
1902	1245	27·0	856	18·5	117			
1903	1322	28·4	813	17·4	118			
1904	1278	26·7	933	19·7	152			
1905	1168	24·3	783	16·3	139			
1906	1227	25·3	811	16·7	132	23·6	15·1	127·5
1907	1178	23·8	848	17·1	143			
1908	1223	24·4	713	14·2	129			
1909	1149	22·6	735	14·5	123·6			
1910	1145	22·2	683	13·2	110·0			
1911	1109	23·8	776	16·7	145·0	23·2	17·1	128·2
1912	1142	24·6	813	17·5	102·4			
1913	1164	22·1	821	15·6	127·1			
1914	1209	23·0	848	16·1	122·4			
1915	1192	22·6	1027	19·5	144·3			
1916	1103	20·3	850	17·0	101·5	19·9	15·5	104·5
1917	1117	18·8	826	15·5	106·5			
1918	1033	17·1	921	17·1	126·8			
1919	1066	18·5	778	14·1	107·9			
1920	1425	24·7	785	13·7	80			
1921	1310	24·6	818	15·3	105·3	21·8	15·3	88·5
1922	1267	23·6	864	16·1	81·2			
1923	1181	21·8	797	14·7	82·9			
1924	1116	20·3	849	15·4	95·0			
1925	1045	18·8	848	15·1	78·4			

The following figures relate to the deaths of persons not normally resident in the district which occurred within the City:—

Cumberland Infirmary ...	87
Private Nursing Homes ...	22
Private Houses ...	4
Fusehill Hospital ...	6
Died in ambulance whilst being brought into the Cumberland Infirmary ...	1
Citadel Station ...	1
City Police Office ...	1

Inquests.

During the year the City Coroner held 44 inquests. Of this number, 31 related to deaths of persons who resided within the City, and 13 to persons who resided in other districts, but who died within the City. 8 related to children under five years of age, 5 of whom were under one year.

Mortuary.

13 bodies were removed to the Public Mortuary, a post-mortem examination being made in each instance.

Uncertified Deaths.

23 deaths were registered of persons belonging to the City in which no certificate was given by a medical man, and in which no inquest was held.

During 1924, 19 such deaths were registered.

Cancer.

The number of deaths registered as due to cancer during 1925 was 84, against 72 in 1924, the rate of mortality from this disease being 1.5 per 1,000 of the population.

This figure includes all deaths from causes coming within the general term cancer.

Table of Deaths from Cancer, 1916 to 1925.

Age.	Numbers.									
	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925
1 to 5 years ...	...	...	...	...	...	...	...	...	...	...
5 to 15 years ...	...	...	1	...	1	...	...	...	...	...
15 to 25 years ...	1	1	1	...	...	1	1	...	1	...
25 to 35 years ...	2	1	1	2	1	2	...	...	1	...
35 to 45 years ...	6	7	5	...	5	2	4	2	5	4
45 to 55 years ...	17	10	13	9	15	5	12	13	10	23
55 to 65 years ...	21	32	21	19	12	20	22	21	20	26
65 to 75 years ...	18	14	17	15	17	19	15	26	25	21
75 & upwards ...	9	8	7	4	11	4	14	16	10	10
Totals ...	74	73	66	49	62	53	68	78	72	84.

GENERAL PROVISION OF HEALTH SERVICES.

Hospitals provided or subsidised by the Local Authority.

(1) *Tuberculosis.* The Corporation has a call upon 20 beds in the Blencathra Sanatorium, Threlkeld, Cumberland, in accordance with the agreement made between the Local Government Board, the Sanatorium Committee, and the Corporation.

(2) *Maternity.* A hospital has been provided by the Corporation at 3 George Street, Carlisle, containing 13 beds and cots.

(3) *Children.* There is a children's ward at the Cumberland Infirmary which provides for local requirements. The Corporation make a general contribution to the funds.

(4) *Fever.* General infectious diseases are sent to Crozier Lodge Isolation Hospital, Carlisle, 50 beds.

(5) *Smallpox.* The Corporation has provided a hospital for the isolation of smallpox a few miles out of the City, containing 12 beds.

(6) *Others.* None.

Institutional Treatment for Unmarried Mothers.

Illegitimate Infants, and Homeless Children.

With the exception of a small house provided by the Diocesan Association at 25 Myddleton Street, Carlisle, which makes provision for one or two expectant unmarried females temporarily, there is no institution providing these facilities except those of the Poor Law Authority.

Ambulance Facilities.

(a) For infectious cases. In the early part of the past year the Corporation purchased a motor ambulance for the removal of cases of infectious disease. For some time the question of horse hire had given rise to considerable difficulty, and often to prolonged waiting on the part of the officer of the Corporation responsible for the removal of infectious cases and disinfection. The introduction of a motor ambulance has rendered the removal of cases of infectious disease much more expeditious and with less discomfort to patients; indeed, having regard to the increased number of cases of scarlet fever which it was necessary to remove during the year, had a motor ambulance not been available a good deal more work would have had to be done after office hours and with further inconvenience in the homes from which cases were removed.

(b) For non-infectious and accident cases. A public ambulance, provided by the Corporation, for accidents and illness other than infectious disease, is kept at the Fire Station, Spring Gardens Lane, for which the following charges are made:—

For residents in the City	7/6 for each removal
For not exceeding 2 miles outside the City	10/- „
For beyond 2 miles and not exceeding 3 miles	12/6 „
For each additional mile thereafter (limited to 20 miles outside the City)	3/- per mile

Between 9 p.m. and 7 a.m. 50 per cent. additional is charged.

In cases of accidents in the streets no charge is made for the removal of persons to the Infirmary or their homes.

Professional Nursing in the Home.

(a) *General.* None.

(b) *Infectious.* An annual retaining fee of £20 is paid by the Council to the Carlisle District Nursing Association, on condition that nursing facilities will be made available by them for such cases of puerperal fever, ophthalmia neonatorum, measles, whooping cough, and epidemic diarrhœa, as the Council may require them to attend. In addition, 1s. per visit is paid on account of such cases.

Midwives.

The Corporation do not employ midwives except at the Maternity Hospital, and do not pay any subsidy in respect of any midwife practising in the district.

There were 24 midwives in practice in the area at the end of the year.

Chemical Work.

With regard to the arrangements which have been in force for chemical work during the period under review, these were as follows:—

For many years the work in respect of the chemical analysis of water, foods, drugs, &c., was carried out by Robert Hellon, Esq., Ph.D., F.I.C., &c., Whitehaven. Dr. Hellon died towards the end of the year 1924, and this work has since been carried out by Cyril J. H. Stock, Esq., B.Sc., F.I.C., &c., of Darlington, who upon his appointment opened a laboratory at Eaglesfield Abbey Chambers, Carlisle, to which all articles submitted for analysis are sent.

The results of the analysis of the various foods, drugs, &c., for the past year are shown on page 90, the analytical results of samples in previous years being set out in the various annual reports.

Bacteriological Work.

During the year 46 samples of milk were submitted to the Public Health Laboratory, Manchester, for bacteriological examination, 43 being samples of fresh cows' milk, and 3 of pasteurised cows' milk. 26 of the above were routine samples purchased from milkshops and carts in the City. The remaining 17 samples were obtained at three farms, in the milk from which the tubercle bacillus had been found, *i.e.*, in three of the 26 samples previously mentioned, and following these bacteriological findings four milk cows were subsequently eliminated from the herds.

Two other samples of milk were sent by the Veterinary Inspector to the Clinical Research Association for bacteriological examination in the case of a suspected animal at each of two farms. In both instances action was taken after the re-introduction of the Tuberculosis Order. Both animals were found to be tuberculous, and post-mortem in one the disease was in an advanced condition, and in the other not advanced. The owner was in each instance compensated in accordance with the Order.

91 specimens of sputum have been examined for the presence of tubercle bacilli, in 37 of which the organism was found.

16 swabs from throats were submitted to the Clinical Research Association for examination for the Klebs Loeffler Bacillus, and in two instances the organism was found.

Four samples of City water, taken from a domestic tap, were submitted to the Public Health Laboratory, Manchester, for bacteriological examination. A tabulated summary of the reports is given on page 20.

SANITARY CIRCUMSTANCES.

Water Supply.

The water supply of the City of Carlisle is obtained from Geltsdale by the powers contained in the Carlisle Corporation (Water) Acts, 1898-1906, and the Provisional Order, 1910.

The water is collected and conveyed by pipes to a receiving chamber at the junction of the old and new waters, and from thence to a large impounding storage reservoir in the Castle Carrock Valley, the capacity of which is upwards of 180 million gallons, covering an area of about 42 acres. The top water level of this reservoir is 508 feet above Ordnance Datum.

Adjoining the reservoir are seven filter beds, covering an area of 5,250 square yards, adjacent to which there is sufficient space for two additional beds to be added when required. From these filters the water passes into an enclosed pure water tank, from whence it flows by gravitation for six miles through a 16in. cast-iron pipe to the covered service reservoir at Cumwhinton, which has a holding capacity of five million gallons, the top water level of which is 275 feet above Ordnance Datum. From Cumwhinton to the City, a distance of four and a half miles, the water is conveyed by a 21in. cast-iron main. The possibilities of contamination of the Carlisle water are therefore reduced to a minimum, and its plumbo solvent action, tested according to the methods of the Ministry of Health, shows the water to be practically incapable of taking up lead.

The supply provides a sufficiency of water of very high quality to the whole of the inhabitants of the area of the Local Authority and to a number of outside villages, &c. The supply is constant and abundant, and is the only source of water supply to the inhabitants of the City.

**Total annual distribution of Water from Cumwhinton
covered reservoir during the years 1916 to 1925.**

Year.	Number of Gallons.	No. of Gallons per head, per day.
1916	758,483,000	35.80
1917	801,490,000	33.78
1918	795,220,000	34.58
1919	804,040,000	34.88
1920	814,170,000	35.41
1921	771,250,000	33.54
1922	759,500,000	32.98
1923	747,320,000	32.49
1924	712,630,000	30.90
1925	737,000,000	32.06

**Bacteriological Results of Quarterly Samples of Water
taken from a Domestic Tap.**

QUANTITATIVE ANALYSIS		1925.							
A. Aerobic micro-organisms growing in 3 days in nutrient gelatine at 20° C. to 21° C.		Number of colonies in one gramme of water.				No. of kinds clearly recognisable.			
		MAR.	JUNE.	SEPT.	DEC.	MAR.	JUNE.	SEPT.	DEC.
Non-Liquefying Bacteria	...	56	242	88	50	4	3	...	...
Liquefying Bacteria	...	5	77	26	10	3	3	...	...
Other Micro-Organisms	...	...	...	...	...	...	...	...	...
B. Anaerobic Micro-Organisms	...	...	...	...	...	...	...	...	...

QUALITATIVE ANALYSIS.		1925.			
A. Bacteria associated with sewage or faecal pollution	B. Coli communis found in 100 C.C.	MARCH.	JUNE.	SEPT.	DEC.
			B. Coli communis found in 100 C.C. but not in 10 C.C.	B. Coli communis found in 100 C.C. but not in 10 C.C.	B. Coli communis found in 100 C.C. but not in 10 C.C.
B. Bacteria associated with disease	Not found.	Not found	Not found	Not found	Not found

Results of Chemical Analyses of Quarterly Samples of Water taken from a Domestic Tap.

Results shown in parts per 100,000.		1925			
CHEMICAL.	MARCH.	JUNE.	SEPT.	DEC.	
Chlorines as Chlorides	.8000	.8000	.8750	.9750	
Nitrogen as Nitrates ...	.0427	.0823	trace	.0609
Ammonia	None	None	None	None	
Albuminoid Ammonia	None	None	None	None	
Oxygen absorption ...	.0516	.0441	.0692	.0704
Injurious Metals (Lead and Copper) ...	None	None	None	None	
Total Solid Matter dried at 100° C. ...	14	12	13	15	
Temporary Hardness ..	7.2°	7.08°	6.20°	4.4°	
Permanent Hardness ...	4.8°	2.78°	3.60°	4.4°	
Colour and Appearance in two-foot tube ...	Faint green, clear	Light green, not quite clear	Faint green, clear	Light green, not quite clear	
Odour when heated to 50° C.	None	None	None	None	
Microscopical Examina- tion	Minute deposit con- sisting of particles of earthy and vegetable matter, etc	Minute deposit con- sisting of particles of earthy and vegetable matter, etc.	Very minute deposit con- sisting of particles of earthy and vegetable matter, etc.	Minute deposit con- sisting of earthy and vegetable matter, etc.	

Bacteriologically and chemically all the samples
were satisfactory.

Rivers and Streams.

It will be seen from the foregoing remarks that none of the water from rivers or streams in the area of the Authority is used for drinking purposes, but it may be said that these streams, &c., are free from dangerous pollution. A certain amount of innocuous dyewash effluent from one or two textile factories in the area finds its way into one of the streams, but this appears to have no ill-effect upon aquatic life, and any unpleasant appearance which may be imparted to the stream is lost as it approaches its outlet into the river.

Drainage and Sewerage.

Both the character and sufficiency of the arrangements for drainage, sewerage, and sewage disposal in all parts of the area are good. There are, however, a few exceptions in respect of small groups of houses, the two most important of which are situated close to its banks on the north side of the River Eden. One of these groups is provided with water closets and sewerage, and the effluent is discharged into the river at a low water level. The other small groups of houses have facilities for the drainage of slop and surface water, but still have privy middens. It is, however, hoped that, in the near future, these privy middens will be superseded by water closets, and in all these unusual instances the drainage will be linked up with the general drainage.

Closet Accommodation.

Scavenging.

Sanitary Inspection of the Area.

Smoke Abatement.

Offensive Trades.

Information regarding these matters will be found in the report of the Chief Sanitary Inspector, pages 83-85 and 87-88.

Schools.

The sanitary condition of the schools generally in the City is good. Some of the school buildings are much older than others, but from time to time the Education Committee have effected beneficial changes by giving up the use of a school or by reconstruction or partial reconstruction of a school. There are proper facilities in every school in the area for an abundant supply of

water both for drinking and all sanitary purposes under the Authority's scheme of water supply.

The circumscribed character of the City, together with its large population, renders it impossible to prevent intimate communication between individual members of the community. In the circumstances, neither the Local Authority nor the Education Committee have for a number of years been able to satisfy themselves that any appreciable benefit in respect of the spread of infectious disease would be likely to result from school closure, consequently the methods adopted against the prevention of the spread of infectious disease have been the various active steps taken by the officers of the Authority and the exclusion of individual scholars.

The Medical Officer of Health is also administrative officer in respect of the School Medical Service, consequently every officer of the Public Health Department and the School Medical Department may be said to be constantly engaged upon work which has for its object the prevention, the detection, and the treatment, not only of infectious diseases, but of many other diseases associated with school age.

HOUSING.

With the exception of a few groups of houses or small areas, the housing conditions of the City may be said to be equal to those of the average industrial town of its size and type. The greater number of the working-class dwellings are self-contained and well built. A portion of the City, however, consists of back-to-back houses, containing a living room and one or two bedrooms, the occupants having access to, and the use of, yards common to a number of houses, together with domestic offices. The remaining houses of the working classes are situate in courts and lanes, and are mostly of the one or two-roomed tenement class, housing generally those of the population of the City who, for various reasons, are difficult to house under better conditions.

The self-contained houses referred to may be said to be in a good state of repair, while the back-to-back and court houses are in many instances not in good condition. The principal defects of the latter class, in addition to density, are the general dilapidation (both

exterior and interior), dampness, and deficiency in offices both inside and outside. Many of the defects are undoubtedly due to the result of ineffectual supervision by owners or by their agents, but in the greater number of instances the defects are due to the acts or omissions of the tenants themselves, particularly those arising from the misuse of drains, w.c.'s, outbuildings, and the damage to flagged pavements.

Having regard to the complex factors operating, it is difficult to estimate the real shortage of houses; to arrive at an accurate figure of this kind would necessitate a complete census of the people being taken at more frequent intervals. Judging, however, by the number of applicants for new houses, whose names are now upon the Corporation register, there would appear to be a shortage of about 1,000 houses, but I would not like to say that this figure would be found to be altogether accurate, as there are many instances of people who have made application for a new house who already have a house, so that it is more probable that the number who actually need a house might reasonably be calculated at 700, excluding any houses which would be required in the event of further demolitions.

Overcrowding of a more or less acute nature is somewhat prevalent in certain parts of the City, and some idea as to its extent may be suspected, having regard to the conditions revealed during a special inspection made of some of the Council houses, particulars of which are given on page 84.

With regard to the causes which have operated in determining the shortage of working-class dwellings in the City, I am of opinion that, excluding the natural increase in the population and a variety of other factors which may be regarded as common to the whole country, there have been two features of particular note, the first of these being the failure of the supply of houses for the working classes by private enterprise which became marked about the year 1907 or 1908, and had ceased almost entirely by the time the Corporation began building houses, the second feature, a very beneficial one as regards the health of the inhabitants of the City, being the large number of insanitary houses or tenements demolished or reduced in consequence of re-construction of the property.

Number of New Houses erected during the year :—

(a) Total (including numbers given separately under (b)).	338
(b) With State assistance under the Housing Acts :	
(i) By the Local Authority.	230
(ii) By other bodies or persons.	88

1.—*Unfit Dwelling Houses.*

<i>Inspection.</i> —(1) Total number of dwelling houses inspected for housing defects (under Public Health or Housing Acts)	42
(2) Number of dwelling houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910 ; or the Housing Consolidated Regulations, 1925	9
(3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	None
(4) Number of dwelling houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation ...	9

2.—*Remedy of Defects without Service of formal Notices.*

Number of defective dwelling houses rendered fit in consequence of informal action by the Local Authority or their officers	19
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3.—*Action under Statutory Powers.*

(a) Proceedings under Section 3 of the Housing Act, 1925—

(1) Number of dwelling houses in respect of which notices were served requiring repairs	None
(2) Number of dwelling houses which were rendered fit after service of formal notices	
(a) By Owners	5
(b) By Local Authority in default of Owners	None
(3) Number of dwelling houses in respect of which Closing Orders became operative in pursuance of declarations by Owners of intention to close ...	None

(b) Proceedings under Public Health Acts —		
(1) Number of dwelling houses in respect of which notices were served requiring defects to be remedied	33.	
(2) Number of dwelling houses in which defects were remedied after service of formal notices		
(a) By Owners	33.	
(b) By Local Authority in default of Owners	None.	
(c) Proceedings under Sections 11, 14, and 15 of the Housing Act, 1925 —		
(1) Number of representations made with a view to the making of Closing Orders	8	
(2) Number of dwelling houses in respect of which Closing Orders were made ...	8	
(3) Number of dwelling houses in respect of which Closing Orders were determined, the dwelling houses having been rendered fit	None	
(4) Number of dwelling houses in respect of which Demolition Orders were made	8	
(5) Number of dwelling houses demolished in pursuance of Demolition Orders ...	None	

INSPECTION AND SUPERVISION OF FOOD.

Milk Supply.

The number of milk producers in the City is 22, the number of cowsheds 36, and the average number of cows housed therein 230.

During the year there were 15 milkshops and 56 milk purveyors on the register, 29 of the purveyors being persons whose premises are situated outside the City.

With regard to the milk supply generally, whether produced within or brought into the area, from the point of view of wholesomeness it may be said that no outbreak of acute infectious illness has occurred in my experience as Medical Officer of Health; on the other-

hand many of the milks throughout the whole year contained an excess of litter, dung, and harmful micro-organisms. There is much room for improvement in the methods of production and subsequent handling of milk, especially with regard to the grooming of cattle and the personal cleanliness of the milkers. The arrangements for the supply and distribution of the milk itself appear adequate for the necessities of the community.

The larger proportion of the fresh milk retailed in the City comes from districts outside and is sold direct from the cans, conveyed mostly by carts, and in one or two instances by motor vehicle. Two milk purveyors retail the whole of their milk in bottles, the milk being cooled and bottled at the time of production. A third purveyor sells partly from the can and partly in bottle, but in this instance the milk is not bottled until after it has arrived in the City from farms outside.

With regard to the Milk and Dairies Consolidation Act, 1915, and the Milk and Dairies (Amendment) Act, 1922, these have been administered as and from the time of their coming into operation, and these remarks also apply in connection with the Dairies, Cowsheds, and Milkshops Orders.

With reference to the action taken as to tuberculous milk and tuberculous cattle, it is interesting to note that for the past $27\frac{1}{2}$ years the Local Authority have employed the services of a qualified Veterinary Surgeon, and during the past 18 years to my personal knowledge, in addition to the many visits of inspection made by myself and the Sanitary Inspectors in respect of cowsheds and the cattle housed therein, the Veterinary Inspector has systematically and regularly visited the cowsheds and carried out all necessary work in connection with the inspection and well-being of the dairy cattle.

It is the custom for the Veterinary Inspector to make regular examinations of all dairy cattle housed in the cowsheds of the City, and in respect of newly-purchased animals to subject such cattle within three days of their purchase to a thorough examination, and in the event of any one being found unsatisfactory, to eliminate such

animal from the dairy, and in the case of all suspected cases of tuberculosis, induration, wasting, &c., to obtain and submit samples of the milk for bacteriological examination.

With regard to the general examination of milk for the purpose of the detection of conditions likely to cause disease, and particularly tuberculous infections, these samples are obtained by the Sanitary Inspector and his assistants from the milkshops within the City, or carts of both the City purveyors and the purveyors from the county area, all of which are submitted to the Director of the Public Health Laboratory, Manchester. In the event of such examinations, which include experiments on animals, revealing the presence of the tubercle bacillus, the farm or dairy, whether within or outside the area of the Local Authority, is visited by myself and the Veterinary Inspector of this Authority, and the necessary work in respect of examination, bacteriological research, and later the elimination of unfit animals carried out.

Only one licence has been issued under the Milk (Special Designations) Order, 1923. This was granted to the Carlisle Co-operative Society, Ltd., in respect of pasteurising plant erected during 1924. When the Society contemplated the provision of this plant I was supplied with particulars of the plant itself and the premises to be used for the purpose, &c., which I found to comply with all the requirements. The plant erected was the latest variety of the positive holder type. The whole of the dairy work of the Society is under the supervision and management of a full-time officer, who is a Bachelor of Science (Agric.).

There has been no refusal or revocation of registration of a retailer or of a licence for graded milk.

Excluding the question of tubercle bacilli, the following particulars show the bacterial condition of 39 samples of milk in respect of the number of micro-organisms and other contaminating matters present.

PASTEURISED MILK.

No. of sample.	Date when sample was taken.	Total No. of bacteria per 1 c. c.	B. Coli present in			Total sediment (cells, cellular products, litter, dung, &c.) in parts per 100,000.
			1 c. c.	.1 c. c.	.01 c.c.	
1	17th June	31,000	+	+	+	18
2	21st Sept.	261,750	+	+	+	14
3	9th Dec.	9,400	-	-	-	9

RAW MILK.

No. of sample.	Date when sample was taken.	Total No. of bacteria per 1 c. c.	B. Coli present in			Total sediment (cells, cellular products, litter, dung, &c.) in parts per 100,000.
			1 c. c.	.1 c. c.	.01 c.c.	
1	8th Jan.	6,163	-	-	-	22
2	"	4,900	-	-	-	190
3	25th Mar.	149,000	+	+	+	8
4	"	67,200	+	-	+	28
5	"	50,533	+	+	+	52
6	"	163,333	+	+	+	10
7	6th April	49,000	+	+	+	32
8	"	48,000	+	+	+	38
9	"	112,000	+	+	+	22
10	"	6,700	+	+	+	20
11	20th April	2,797	-	-	-	33
12	"	304,333	-	-	-	20
13	"	6,000	-	-	-	7
14	"	1,357	-	-	-	6
15	12th May	830	+	+	-	14
16	"	501,000	-	-	-	More than 300
17	"	57,773	+	+	+	24
18	"	1,977	-	-	-	35
19	"	110	+	-	-	40
20	"	230	-	-	-	25
21	15th June	4,640,000	+	+	+	Not estimated on account of clotting
22	"	1,011,000	+	+	+	do.
23	"	3,820,000	+	+	+	40
24	"	586,060	+	+	+	Not estimated on account of clotting
25	17th June	1,670,000	+	+	+	75
26	14th July	63,000	+	+	+	40
27	21st Sept.	14,400,000	+	+	+	49
28	"	4,340,000	+	+	+	15
29	"	9,560,600	+	+	+	22
30	"	10,600,000	+	+	+	20
31	"	10,520,000	+	+	+	15
32	9th Dec.	11,950	+	-	-	10.5
33	"	97,000	+	+	-	6
34	"	61,000	+	+	+	7
35	"	254,000	+	+	-	9
36	"	75,000	+	+	-	7.5

Public Health (Milk and Cream) Regulations, 1912 and 1917.

1. Milk; and Cream not sold as Preserved Cream.

	(a) Number of samples examined for the presence of a preservative.	(b) Number in which a preservative was reported to be present.
Milk	46	None
Cream	1	None

Nature of preservative in each case in column (b) and action taken under the Regulations in regard to it.—
None.

2. Cream sold as Preserved Cream.

(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the label as to preservatives were correct—

(i) Correct statements made	...	...	3
(ii) Statements incorrect	...	...	None

	Total	...	3
(iii) Percentage of preservative found in each sample.			Percentage stated on statutory label.
Boric Acid ... ..	.20		.40
„ ... ..	.20		.40
„ ... ..	.07		.40

(b) Determinations made of milk fat in cream sold as preserved cream—

(i) Above 35 per cent.	...	...	...	3
(ii) Below 35 per cent.	...	...	...	None

Total ... 3

(c) Instances where (apart from analysis) the requirements as to labelling or declaration of preserved cream in Article V (1) and the proviso in Article V (2) of the Regulations have not been observed.— None.

(d) Particulars of each case in which the Regulations have not been complied with, and action taken.— None.

3. Thickening substances. Any evidence of their addition in cream or to preserved cream. Action taken where found.

The Analyst makes no remark upon the question of thickening substances in his reports.

4. Other observations (if any).— None.

Meat.

The Corporation have a commodious and well-equipped Slaughter-house, which was opened in 1893. The management is under the supervision of the Medical Officer of Health, who, in the administration of these duties, is assisted by the Sanitary Inspector and his deputy, and a resident Superintendent at the Abattoir itself, who is provided with all necessary assistance. As there is no so-called private slaughter-house in the City, all animals slaughtered for human consumption in the City are dealt with at the Public Abattoir. Licences are granted in respect of three killing sheds, two of which, viz., the L.N.E. Railway and the L.M. & S. Railway, are used exclusively for the slaughter of sheep and lambs for the Smithfield Market, and the third exclusively for the slaughter of pigs by Messrs. Cavaghan & Gray, Harraby.

Inspection of meat at the Public Slaughter-houses is performed in the first instance by the Superintendent, who retains all unsound, diseased, or suspected meat for further examination by the Medical Officer of Health or an authorised officer of the Local Authority acting under him. So far the marking of meat at the Public Abattoir has not been adopted, but having regard to the fact that meat slaughtered at the Public Abattoir is inspected by the Superintendent, and in the case of the other killing sheds by the Sanitary Inspectors, the routine marking of the meat is probably unnecessary. Any diseased meat is destroyed at the Corporation Destructor. Attention is paid to the adequate covering of meat during its conveyance from the Slaughter-houses to the butchers' shops in the City. There are no meat stalls in the City other than those situate inside the Covered Markets owned by the Local Authority, over which ample supervision exists. All other shops from which meat is sold or purveyed are regularly inspected, and without exception every butcher's shop in the City is fitted with a window or windows which are adequately regulated so as to ensure protection to meat.

Public Slaughter-houses.

The following Table gives particulars of Animals killed, Carcasses examined, and particulars of Carcasses unfit for human food:—

Animal	Total number of animals slaughtered and examined	Number of carcasses specially referred for examination	Number in which the whole carcass was unfit for human food	Number in which a portion of a carcass was unfit for human food	Number in which edible offal only was unfit	Number affected with Tuberculosis.	
						Whole carcass condemned	Part of carcass condemned
Oxen	4,485	114	61	11	42	40	5
Sheep	13,948	103	43	4	54	...	...
Calves	375	7	7	...	...	3	...
Pigs	5,962	30	11	4	15	4	...
Totals	24,770	254	122	19	111	47	5

Other Foods.

Information concerning unsound food, food inspection, bakehouses, &c., and the work under the Sale of Food and Drugs Acts will be found in the Report of the Chief Sanitary Inspector, pages 86,87, and 89-91.

PREVALENCE OF, AND CONTROL OVER, INFECTIOUS DISEASES.

Infectious Diseases Generally.

During the year 802 notifications of infectious disease were received, 103 of which related to various forms of tuberculosis, and 699 to other infectious diseases.

The number of deaths certified as due to the seven principal zymotic diseases was 42, equal to a zymotic death-rate of 0.7 per 1,000 of the population. In the previous year 40 deaths were certified as due to zymotic diseases.

With regard to the methods adopted in order to check the spread of infectious diseases, the notes in connection with scarlet fever may be understood generally to be the practice in connection with all acute infectious diseases.

Table showing the Age Groups and Wards in which cases of Infectious Diseases were notified during 1925.

	Number of Cases Notified at various Ages.							Number of Cases notified in each Ward.										Total number of cases notified	Number of cases in- correctly notified	Nett number of cases notified	Number of cases removed to hospital
	Under 1 year	1—5 years	5—15 years	15—25 years	25—45 years	45—65 years	65 and up- wards	Stanwix and Efferby	Ricker-gate	Aglionby	Greystone	St. Nicholas	Currock	Denton Holme	St. Cuthbert's	Caldewgate	Newtown & Belle Vue				
Scarlet Fever	2	58	242	50	14	3	..	21	27	28	74	38	57	48	32	32	12	369	359	190	
Diphtheria ..	1	6	9	2	1	..	...	...	1	..	1	...	2	1	2	3	5	19	12	7
Puerperal Fever	...	...	...	1	3	4	8	...	4	4	5	3	4	1	1	2	...	4	4	...
Erysipelas ..	...	...	...	3	8	..	...	...	4	4	1	...	1	...	...	...	...	23	23	...
Malaria ..	...	...	...	1	1	2	5	...	2	4	9	6	5	5	7	6	6	2	2	5
Acute Primary Pneumonia	2	14	18	6	9	2	1	4	2	4	2	3	5	1	2	3	2	56	56	...	
Acute Influenzal Pneumonia	...	3	...	4	10	2	...	...	2	2	2	3	3	1	2	3	2	20	20	...
Encephalitis Lethargica	...	...	...	...	...	...	...	...	...	...	3	...	2	...	2	2	...	9	9	...
Ophthalmia Neonatorum	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-spinal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Para-Typhoid Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ...	11	186	...	...	...	...	...	2	9	13	24	22	19	42	40	12	14	197	197	1
Pulmonary Tuberculosis	...	...	...	...	...	...	6	8	4	7	8	8	5	12	13	21	2	88	88	...
Other forms of Tuberculosis	1	1	7	17	33	11	1	1	1	..	1	2	1	2	4	2	1	15	15	...	
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Scarlet Fever.

Year	Estimated Population	No. of cases notified	No. of deaths	Attack rate per 1,000 of population	Death-rate per 1,000 of population
1898	45,195	120	8	2.6	0.17
1899	45,290	61	3	1.3	0.06
1900	45,385	99	2	2.1	0.04
1901	45,480	363	6	7.9	0.13
1902	45,575	280	17	6.0	0.37
1903	45,670	101	5	2.2	0.10
1904	45,765	180	3	3.8	0.06
1905	45,860	378	5	8.2	0.10
1906	45,956	670	9	14.5	0.19
1907	46,051	177	6	3.8	0.13
1908	46,146	89	—	1.9	—
1909	46,241	119	6	2.5	0.12
1910	46,336	248	2	5.3	0.04
1911	46,432	139	2	2.9	0.04
1912	52,225	110	2	2.1	0.03
1913	52,333	164	—	3.1	—
1914	52,441	251	9	4.7	0.17
1915	52,550	562	10	10.6	0.19
1916	52,658	225	6	4.2	0.11
1917	52,716	30	—	0.5	—
1918	52,875	38	—	0.7	—
1919	52,983	41	2	0.7	0.03
1920	53,091	70	—	1.3	—
1921	53,200	79	1	1.4	0.01
1922	53,490	104	1	1.9	0.01
1923	54,010	150	1	2.7	0.01
1924	54,910	245	4	4.4	0.07
1925	55,160	369	4	6.6	0.07

The foregoing table shows the population, the number of cases notified annually, the attack-rate, and the death-rate per 1,000 of the population, in respect of scarlet fever during the 28 years, 1898-1925; whilst the following table shows the notifications relating to scarlet fever for each week ending during the year.

Week ending—

3rd January	...	2
10th	..	5
17th	..	6
24th	..	8
31st	..	3
7th February	...	2
14th	..	4
21st	..	5
28th	..	3
7th March	...	5
14th	..	5
21st	..	5
28th	..	1
4th April	...	3
11th	..	1
18th	..	—
25th	..	3
2nd May	...	4
9th	..	6
16th	..	2
23rd	..	6
30th	..	1
6th June	...	—
13th	..	2
20th	..	1
27th	..	8

Week ending—

4th July	...	8
11th	..	3
18th	..	3
25th	..	4
1st August	...	3
8th	..	9
15th	..	5
22nd	..	4
29th	..	8
5th September	...	13
12th	..	8
19th	..	13
26th	..	10
3rd October	...	12
10th	..	13
17th	..	14
24th	..	17
31st	..	20
7th November	...	8
14th	..	18
21st	..	25
28th	..	12
5th December	...	6
12th	..	14
19th	..	14
24th	..	6
31st	..	8

It will be seen from the former of the foregoing tables that the number of cases notified is greater than that during any year since 1915, and it may be that the increased number of cases during the year and also those for the previous year or two were the result of the existence of a larger number of susceptible children resulting from the low incidence of the disease observed during the years 1917-1921. The increase in the number of cases notified during the latter part of the year 1924, which continued throughout January, did not decline in the manner one would have expected in the spring and summer, but continued, though not in very large numbers, throughout the summer and autumn, when a gradual increase in the numbers was again observed.

reaching a maximum during the week ending 21st November, since when the numbers have shown a decline.

A table on page 33 shows the distribution of the disease in the various wards of the City, and the age incidence of the 369 cases under review.

With regard to the relationship between the incidence of the disease and the character of the affected homes, the following figures were observed. 7 cases occurred in dwellings with only one room. Of the 362 remaining cases, 39 occurred in dwellings having one bedroom, 174 in dwellings provided with two bedrooms, 119 in houses with three bedrooms, and 25 in houses containing four or more bedrooms.

3 cases occurred in a residential school, and 2 cases occurred in public institutions, 1 being a patient and the other an officer, though not of the same Institution.

In all, 310 houses were involved, in 268 of which only 1 case of scarlet fever occurred. In 32 instances, however, 2 cases occurred, and in 8 instances 3 cases, whilst in 2 instances 4 notifications related to the same house.

With regard to the association between scarlet fever and children of school age, 151 children notified were in attendance at the Elementary Schools, 9 were in attendance at the Girls' High School, and 5 at the Carlisle Grammar School.

During the year 4 deaths were certified as due to scarlet fever.

As to the measures which are taken to check the spread of the disease, these are such as have been carried out for a number of years. In addition to the written notifications some of the practitioners in the town are in the habit of notifying by telephone as soon as possible after seeing a case of infectious disease, in order to expedite removal or other administrative procedure.

The regulations of the Local Education Authority also provide for the intimation by Head Teachers and School Attendance Officers of cases of actual or suspected infectious or contagious disease which come to their knowledge; actual and suspected cases are also reported

by School Medical Officers, Sanitary Inspectors, School Nurses and Health Visitors. On receipt of a notification or intimation of a case of infectious disease, or of a suspected case, and even in the case of sore throat during outbreaks such as that which the City has recently experienced, the house is visited by one of the officers of the Public Health Department, who makes the necessary enquiries, &c., in respect of the patient notified, of other occupants of the house, and also with regard to other persons who have visited the house. In connection with the greater number of cases segregated in their own homes, I have personally visited the patient with a view of satisfying myself that the case could with reasonable safety be left at home, and especially in instances in which there was any doubt as to the diagnosis, or where my officer considered that for some other reason I should visit.

Of the 369 cases under review, 190 cases were removed to the Isolation Hospital.

In the months of October and November, during which a greater proportion of notifications occurred, the pressure on the accommodation of the Hospital was acute. In some instances a little delay was experienced in connection with removal to Hospital, and in a few cases this condition probably caused some inconvenience to the affected family.

10 so-called return cases occurred. In 6 instances one case occurred within a month of the return of the first case from Hospital, and in the 2 remaining instances two cases occurred. In no instance had the first case stayed any undue length of time in Hospital, the longest being 40 days. No difficulty occurred in connection with these cases.

The vast majority of cases throughout the year were mild, indeed this condition has also applied to the majority of the cases of scarlet fever in the City for a number of years past, and has been, I have no doubt, the principal source of the spread of the disease.

No experimental work in connection with ascertainment of susceptibles or work in respect of immunisation has been undertaken.

Table showing notifications, cases isolated, and number of deaths from scarlet fever during the years 1921-1925.

Year.	No. of cases notified.	No. of cases isolated in Hospital.	Average period in Hospital (days).	No. of return cases.	No. of deaths.	Deaths per 100 cases.
1921	79	57	43.5	0	1	1.
1922	104	65	40.5	2	1	0.
1923	150	82	41.7		1	0.
1924	245	171	35.9	9	4	1.6
1925	369	190	37.9	10	4	1.0

Diphtheria.

The number of cases of diphtheria notified was 19, compared with 68 in 1924.

In 7 instances the patient was subsequently found not to be suffering from diphtheria.

2 deaths of residents of the City occurred, and the death-rate for this disease was 0.03 per 1,000 of the estimated population at all ages.

7, or 36.8 per cent., of the cases notified were removed to the Isolation Hospital.

No return case of diphtheria occurred.

No experimental work in connection with ascertainment of susceptibles or work in respect of immunisation has been undertaken.

Table showing notifications, cases isolated, and number of deaths from diphtheria during the years 1921-1925.

Year.	No. of cases notified.	No. of cases isolated in Hospital.	No. of deaths.	Deaths per 100 cases.
1921	57	42	8	14.0
1922	64	48	2	3.1
1923	87	46	10	11.5
1924	68	46	9	13.2
1925	19	7	2	10.5

Anti-Diphtheria Serum.

7 applications were made by medical practitioners for the free supply of anti-diphtheria serum, 48,000 units having been supplied.

Table showing case mortality of Scarlet Fever and Diphtheria isolated in Hospital compared with Home Cases.

Year.	SCARLET FEVER.				DIPHTHERIA.			
	Hospital Cases.		Home Cases.		Hospital Cases.		Home Cases.	
	No. of Cases Isolated.	Death-rate per 100	No. of Cases Isolated.	Death-rate per 100	No. of Cases Isolated.	Death-rate per 100	No. of Cases Isolated.	Death-rate per 100
1921	57	1·7	22	0·0	42	11·9	15	20·0
1922	65	1·5	39	0·0	48	4·1	16	0·0
1923	82	0·0	68	1·4	46	6·5	41	17·0
1924	171	1·7	74	1·3	46	13·0	22	13·6
1925	190	0·0	179	2·2	7	0·0	12	16·6

Smallpox.

The City was free from smallpox during the year, and has for many years been free. Notifications were received from Port Sanitary Authorities in respect of 5 persons who had arrived in this country in ships on which smallpox had occurred, and who were proceeding to Carlisle.

No vaccinations were undertaken during the year under the Public Health (Smallpox Prevention) Regulations, 1917.

Enteric Fever.

Para-Typhoid Fever.

Typhus or Continued Fever.

No notifications relating to these diseases were received during the year.

Table showing the average number of cases notified as enteric fever for 5-year periods, 1890—1919, and for the 6 years 1920-1925.

Years.	Average for periods of 5 years.	Year.	Number of cases notified.
1890-1894	21·2	1920	2
1895-1899	18·6	1921	1
1900-1904	12·6	1922	...
1905-1909	3·2	1923	...
1910-1914	3·8	1924	8
1915-1919	1·4	1925	...

Malaria.

2 notifications relating to patients suffering from malaria were received. In each instance the patient had been abroad on active service, and had been infected whilst abroad. 28 such cases have been notified during the past five years.

No case of malaria of indigenous origin has ever come to the notice of the Local Authority.

Dysentery.

No case of dysentery was notified, but during the previous four years three cases were notified.

Pneumonia.

76 notifications of pneumonia were received during the past year. In 20 instances the disease was stated to be of the acute influenzal type, and in 56 instances of the acute primary type.

All were investigated by the Health Visitors, and, where the patient was not removed to Hospital, isolation was carried out as far as possible, and where necessary advice given as to nursing and prevention of infection to others. 117 visits by the Health Visitors were made in this connection.

In 5 instances the patient was removed to Hospital.

Death took place in 3 instances of the cases notified as influenzal pneumonia, and in 8 instances of those notified as primary pneumonia.

A total of 426 notifications occurred during the past 5 years.

Influenza.

21 deaths of residents were registered as due directly to influenza, as against 23 in 1924.

The age distribution of the deaths occurring among the 21 persons was as follows:—

0 to 1	1 to 2	2 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and up- wards	Total
1	2	...	2	...	1	2	2	4	5	1	1	21

Encephalitis Lethargica.

No case of encephalitis lethargica was notified, but during the previous four years 11 cases were notified.

Cerebro-Spinal Fever.

No case of cerebro-spinal fever was notified, but during the previous four years 5 cases were notified.

Tetanus.

No case of tetanus has been notified during the past five years.

Other Infectious Diseases.

Particulars relating to puerperal fever, ophthalmia neonatorum, measles, whooping cough, chickenpox, and mumps, are given on pages 73 and 74.

Notification Fees.

The total amount paid in fees for notifications of all notifiable diseases during 1925 was £120 2s. 9d.

TUBERCULOSIS.

There have been few changes of vital importance in connection with the Authority's scheme during the past five years.

The Dispensary has been open on Tuesday and Friday afternoons and Wednesday evenings for adults, and on Wednesday afternoons for children. An extra clinic has been held fortnightly for tuberculin treatment. Dr. A. Semple is responsible for the work in connection with the supervision and treatment of tuberculous patients at the Tuberculosis Dispensary.

The nursing provision in respect of tuberculosis remains the same, viz., 4 nurses whose duties are jointly those of tuberculosis nurse and school nurse.

The arrangements with regard to institutional treatment are unchanged; these provide for 20 beds at Blencathra Sanatorium. These, strictly speaking, are for the reception of early and intermediate cases, but in the absence of provision for advanced cases a limited number of such individuals are treated for short periods at Blencathra, the object in these cases being to inculcate careful habits and provide instruction, and at the same time to remove a serious source of infection from the home. This system can scarcely be defended, but up to now there has been no other method of dealing with these infecting cases.

Cases of surgical tuberculosis are referred to the Cumberland Infirmary in the first instance, and afterwards, if necessary, transferred to Blencathra.

The co-ordination with the School Medical Service is very good, the Tuberculosis Officer being also one of the Officers of the School Medical Service, his work in this respect being more particularly connected with the examination of special cases referred to him for diagnosis and treatment. He is also closely connected with the Open-air Classes at Newtown School, through which a considerable number of early non-infective or suspected cases of tuberculosis pass each year.

Medical Practitioners may avail themselves of the services of the Tuberculosis Officer, and a large number of patients are referred by them to the Dispensary, but it is to be hoped that the future may show a larger number of suspected cases being brought to the notice of the Tuberculosis Officer, with the possible result of fewer late cases in which treatment is so often hopeless. Sputum phials are issued to practitioners for free examination and report on any specimens submitted to the Tuberculosis Officer. Diagnosis by this means, however, does not reveal the early case and should be regarded only as confirmatory and not diagnostic. A fairly general use is made of Forms G.P. 17 and 36 by Insurance Practitioners, but these arrangements appear to be somewhat difficult to carry out satisfactorily; it may be, however, that in this connection Carlisle compares favourably with other areas.

No difficulty is experienced in following up patients whose diagnosis is doubtful. With regard to contacts, the arrangements so far as school children are concerned are entirely satisfactory, and a considerable proportion of the adult contacts submit themselves, without pressure, for examination.

Neither x-ray nor the tuberculin test are utilised at the Dispensary in respect of diagnosis, reliance being placed on clinical findings and sputum examination. A limited number of cases have been treated by means of tuberculin B.E., with apparently satisfactory results, and one or two cases of superficial tuberculosis have received X-ray treatment with favourable results.

No provision for the application of dental treatment to tuberculous persons has so far been made by the Council. Patients are recommended to apply for this benefit to their Approved Societies.

The Council has no arrangements for the provision of nurses for home nursing, or for the provision of extra nourishment, but to some extent these are available through the voluntary agencies.

After-care and Employment Committees have not been formed, but the Tuberculosis Officer is able to get a considerable amount of assistance in this connection from voluntary agencies and employers of labour.

Home Shelters are not in use in the City; in the majority of instances there is no space available for such an arrangement at the home of the patient.

Any special difficulties met with in this area in connection with the problem of tuberculosis would be likely to be associated with the following, viz.:—

- (1) The absence of residential accommodation for infecting and late cases,
- (2) The retarded notification of cases,
- (3) The need for the provision of dental treatment, and
- (4) The absence of an After-care or Employment Committee.

Several new tables appear in the report for the first time in the form prescribed by the Minister of Health. These have necessitated a considerable amount of additional labour in their compilation.

No action has been found necessary, either under the Public Health (Prevention of Tuberculosis) Regulations, 1925, or under the Public Health Act, 1925, Section 62.

113 notifications of tuberculosis were received during the year, of which 10 were duplicates. 85 of the primary notifications were by Medical Practitioners and 18 by the Assistant School Medical Officers or Tuberculosis Officer. 88 related to pulmonary tuberculosis and 15 to other forms of the disease.

56 deaths occurred during the year, 49 from pulmonary tuberculosis and 7 from other forms of the disease. 19.6 per cent. of the deaths related to persons who were not notified in accordance with the Regulations before death took place, and in 7.1 per cent. of these the notification was received after death, leaving 12.5 per cent. in which there was no notification either before or after death. 3.6 per cent. died within a week of notification, making 23.2 per cent. in which the Local Authority were unable to act. 32.1 per cent. died within one month from the notification. Only 46.4 per cent. survived for more than three months, 32.1 per cent. for more than six months, and 26.8 per cent. for more than one year.

Similar figures have been quoted in previous reports, and in reporting this it is hoped to emphasise the futility of late notifications.

In judging of the efficiency of the scheme and the general measures for prevention of tuberculosis, full allowance must be made for this, for such a handicap severely curtails the usefulness of any scheme and creates a false impression of the value of sanatorium treatment. In this connection it might also be repeated that the Local Authority has only one institution to which cases, good, bad, and indifferent, are sent, whereas a thoroughly efficient scheme should provide for observation and classification, so that cases suitable for sanatorium treatment might be drafted, whilst others would be nursed and receive such instruction as would be beneficial to themselves and those about them when sufficiently safe from the point of view of infection for them to return to their homes again.

Reduction in the death-rate from tuberculosis depends largely upon the question of the removal of massive cases of infection from among the healthy occupants of a house and the improvement of social conditions, particularly in respect of housing accommodation. Notification of cases is also helpful in bringing such potential dangers to the notice of the Local Authority and enabling them to arrange for the observation of contacts and suspected individuals, and the supervision of such cases, rather than the treatment of definite cases, should be one of the principal functions of the Tuberculosis Dispensary.

As to the work of the Dispensary, 159 new cases and 6 transferred from other areas were examined during the past year, 146 at the Dispensary and 19 at the home of the patient. 76 were cases which had been notified to the Medical Officer of Health, and 89 were contacts and suspects. Of the 159 new cases, 65 were found to be suffering from tuberculosis, 44 were classified as doubtful, and 50 were not suffering from tuberculosis. Of the cases definitely tuberculous, 54 were suffering from pulmonary tuberculosis, and 11 from other forms of the

disease. 45 were adults and 20 were under 16 years of age.

271 persons on the Dispensary Register at the beginning of the year also presented themselves for re-examination and supervision by the Tuberculosis Officer, so that the number examined was 436. These individuals made a total of 1,455 attendances at the Dispensary: 260 by insured persons, 100 by discharged soldiers, 931 by school children, and 164 by other persons; whilst 144 visits to the homes of patients were made by the Tuberculosis Officer.

36 patients of school age received treatment at the Dispensary by means of tuberculin (B.E.), the total number of injections given being 411.

The Tuberculosis Clinic was open on 191 occasions, and the average number of persons attending per session was 7.6. The Tuberculosis Nurses visited the homes of all patients on the Dispensary Register, and also all cases notified during the year to the Medical Officer of Health. The number of cases of tuberculosis on the Notification Register at the end of the year was as follows:—

Pulmonary	...	Male, 302; Female, 300; Total 602
Non-Pulmonary	...	Male, 94; Female, 82; Total 176

All cases, 778

This register is in course of revision, at the completion of which the number may probably be reduced.

The number of persons on the Dispensary Register at the end of the year was 364. In 52 instances the diagnosis was not completed. In the definite cases still under supervision 270 were pulmonary and 42 non-pulmonary.

91 specimens of sputum were examined, and the tubercle bacillus found in 37 instances. Cod Liver Oil and Malt was supplied free in 22 instances, sputum flasks in 10 instances, and a thermometer in 1 instance.

The average duration of residential treatment at the Sanatorium was 110.8 days. 18 patients were still undergoing treatment at the end of the year. 9 of these were making good progress, 3 fair progress, and 6 were recent admissions.

Residential Institutions.

A--AVERAGE NUMBER OF BEDS AVAILABLE FOR PATIENTS DURING THE YEAR 1925.

	Observation	Pulmonary Tuberculosis		Non-Pulmonary Tuberculosis		Total
		"Sanatorium" Beds	"Hospital" Beds	Disease of Bones and Joints	Other Conditions	
Adult Males	*	} 20
Adult Females	
Children under 15	
Total	

* The Local Authority have a call upon 20 beds at the Blencathra Sanatorium, but there is no fixed agreement as to the number which shall be available for either sex, or for any fixed ages, or class of case, although this Institution strictly does not provide accommodation for what are called advanced cases.

B--EXTENT OF RESIDENTIAL TREATMENT DURING THE YEAR 1925.

		In Institutions on Jan. 1.	Admitted during the year	Discharged during the year	Died in the Institutions	In Institutions on Dec. 31
Number of Patients ...	M.	1	24	17	...	8
	F.	5	19	18	...	6
	M.	4	4	6	...	2
	F.	2	8	8	..	2
Number of Observation Cases ...	M.	...	...	...	..	...
	F.	...	...	..	...	...
	M.	..	...	...	...	...
	F.	..	...	...	..	...
Total ...		12	55	49	...	18

Work of the Dispensary.

Diagnosis	Pulmonary						Non-Pulmonary						Total			
	Adults			Children			Adults			Children			Adults		Children	
	M.	F.		M.	F.		M.	F.		M.	F.		M.	F.	M.	F.
A--New Cases examined during the year (excluding contacts) :—																
(a) Definitely tuberculous ...	21	16		5	6		1	5		1	...		22	21	6	10
(b) Doubtfully tuberculous ...	6	2		10	3		...	...		...	4		6	2	10	3
(c) Non-tuberculous ...	..	1		3	1		1	...		...	...		1	1	3	1
B--Contacts examined during the year :—																
(a) Definitely tuberculous ...	1	1		3	1		...	...		...	...		1	1	3	1
(b) Doubtfully tuberculous ..	...	...		10	12		...	...		...	1		..	...	10	13
(c) Non-tuberculous ...	2	1		19	21		1	..		...	...		3	1	19	21
C--Cases written off the Dispensary Register as																
(a) Cured	3	1		6	4		...	1		2	...		3	2	8	4
(b) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error) ...	5	4		54	45		2	.		...	1		7	4	54	46
D--Number of Persons on Dispensary Register on December 31st :—																
(a) Diagnosis completed ...	71	86		59	54		3	12		10	17		74	98	69	71
(b) Diagnosis not completed ...	4	...		23	23		...	...		1	1		4	...	24	24

Work of the Dispensary—continued.

1. Number of Persons on Dispensary Register on January 1st	...	404	9. Number of Patients to whom Dental Treatment was given, at or in connection with the Dispensary	...	—
2. Number of Patients transferred from other areas and of "lost sight of" cases returned	...	23	10. Number of consultations with medical practitioners:—		
3. Number of Patients transferred to other areas and cases "lost sight of"	...	68	(a) At Homes of Applicants	...	2
4. Died during the year	...	26	(b) Otherwise	...	7
5. Number of observation cases under A (a) and B (b) on previous page in which period of observation exceeded 2 months	...	35	11. Number of other visits by Tuberculosis Officers to Homes	...	144
6. Number of attendances at the Dispensary (including Contacts)	...	1455	12. Number of visits by Nurses or Health Visitors to Homes for Dispensary purposes	...	5501
7. Number of attendances of non-pulmonary cases at Orthopaedic Out-stations for treatment or supervision	...	...	13. Number of		
8. Number of attendances, at General Hospitals or other Institutions approved for the purpose of patients for			(a) Specimens of sputum, &c., examined	...	91
(a) "Light" treatment	...	—	(b) X-ray examinations made	...	—
(b) Other special forms of treatment	...	—	in connection with Dispensary work		
			14. Number of Insured Persons on Dispensary Register on the 31st December	..	105
			15. Number of Insured Persons under Domiciliary Treatment on the 31st December	...	16
			16. Number of reports received during the year in respect of Insured Persons:—		
			(a) Form G.P. 17	..	33
			(b) Form G.P. 35	...	55

Results of treatment of patients and of observation of doubtful cases discharged from Residential Institutions.

Classification on admission to the Institution.			Condition at time of discharge.	Duration of Residential Treatment in the Institution.												Total.	
				Under 3 months.			3—6 months.			6—12 months.			More than 12 months.				
				M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.		
PULMONARY TUBERCULOSIS.																	
Class T.B. minus.	Quiescent	2
	Improved	...	1	...	...	7	6	...	2	4	...	...	...	...	...	...
	No material improvement	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
	Died in Institution	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Class T.B. plus. Group 1.	Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Improved	...	1	...	...	2	...	...	1	...	...	...	...	...	...	...
	No material improvement	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Died in Institution	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Class T.B. plus. Group 2.	Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Improved	...	1	1	...	5	1	...	1	...	...	...	...	...	...	9
	No material improvement	...	2	4	...	...	...	...	...	...	...	...	...	...	...	6
	Died in Institution	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Class T.B. plus. Group 3.	Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Improved	...	1	...	...	1	...	...	1	...	...	...	...	...	...	1
	No material improvement	...	1	...	...	...	...	...	...	...	...	...	...	...	...	2
	Died in Institution	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bones and Joints.	Quiescent or arrested	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Improved	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...
	No material improvement	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
	Died in Institution	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Abdominal.	Quiescent or arrested	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Improved	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	No material improvement	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Died in Institution	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Organs.	Quiescent or arrested	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Improved	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	No material improvement	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Died in Institution	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Peripheral Glands.	Quiescent or arrested	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Improved	...	...	1	...	...	...	...	...	...	...	...	...	...	...	2
	No material improvement	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1
	Died in Institution	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
NON-PULMONARY TUBERCULOSIS.																	
Observation for purpose of diagnosis.	Tuberculous ... Non-tuberculous ... Doubtful ...	Under 1 week.	1—2 weeks.	2—4 weeks.	More than 4 weeks.	...	...	...	...	...	...	...	...	...	...	...

Summary of Notifications of Tuberculosis from 4th January, 1925, to 2nd January, 1926.

NOTIFICATIONS ON FORM A.

		Number of Primary Notifications.															Total Prim-ary Noti-fications.	Total Noti-fications on Form A.
		Ages.																
		0-1	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65 & up-wards.						
Pulmonary	Males	...	...	3	1	2	1	6	14	4	1	3	35	38		
	Females	..	..	3	1	5	9	6	7	3	3	3	40	44		
Non-pulmonary	Males	...	...	...	...	...	...	1	..	...	...	...	1	4
	Females	...	...	1	2	...	1	2	1	..	1	...	9	9		
Totals		1	1	6	4	7	11	15	22	7	5	6	85	95				

NOTIFICATIONS ON FORM B.

		Number of Primary Notifications.				Total Noti-fications on Form B.
		0-5	5-10	10-15	Total.	
Pulmonary	Males	...	...	...	...	6
	Females	...	...	...	...	7
Non-pulmonary	Males	...	...	...	...	1
	Females	...	...	...	...	4
Totals		...	13	5	18	18

NOTIFICATIONS ON FORM C.

		Poor Law Institutions.		Sanatoria.	
Pulmonary	Males	...	...	27	...
	Females	...	...	25	...
Non-pulmonary	Males	...	...	...	...
	Females	...	...	...	...
Totals		...	4	52	...

Supplemental Return.

New cases of tuberculosis coming to the knowledge of the Medical Officer of Health otherwise than by notification on Form A or Form B under the Public Health (Tuberculosis) Regulations, 1912.

Ages.	0-1	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65 and up-wards.	Total Cases
Pulmonary—												
Males .. .. .	...	...	..	1	...	...	...	1	1	2	...	5
Females .....	...	...	...	...	1	...	3	...	...	...	..	4
Non-pulmonary												
Males	1	..	...	.	...	...	...	...	...	.	...	1
Females .....	...	2	...	...	...	..	1	...	...	...	1	4
Totals	1	2	...	1	1	...	4	1	1	2	1	14

The total number of deaths of City residents registered from all forms of tuberculosis was 56, equal to a death-rate of 1.01 per 1,000 of the population at all ages. Of this number, 49 (87.5 per cent.) were due to pulmonary tuberculosis, equal to a death-rate of 0.8 per 1,000 of the estimated population at all ages.

Distribution of the Deaths from Tuberculosis in the various Wards of the City, 1925.

	Stanwix and Etterby	Rickergate	Aglionby	Greystone	St. Nicholas	Currock	Denton Holme	St. Cuthbert's	Callegate	Newtown & Belle Vue	Carlisle
Pulmonary ...	5	4	3	2	3	7	4	6	11	4	49
Non-pulmonary ...	...	1	...	1	1	1	1	...	2	...	7
Tota's	5	5	3	3	4	8	5	6	13	4	56

Age and Sex distribution of New Cases and Deaths from Tuberculosis, 1925.

Ages.	0-1	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65 and over.
New Cases.											
Pulmonary—											
Male	8	2	2	1	6	14	4	1	3
Female	6	5	5	9	6	7	3	3	3
Non-Pulmonary—											
Male	1	...	...	...	1	...	...	...	...
Female	...	1	1	4	2	...	1	2	1	...	...
Deaths.											
Pulmonary—											
Male	1	1	2	4	7	1	4	1
Female	2	2	1	11	5	3	2	2
Non-Pulmonary—											
Male	...	1	...	...	1	...	...	...	...	...	...
Female	...	1	1	...	1	...	...	...	...	...	1

Table showing the period persons dying in 1925 survived after notification.

	Not Notified	Died before Notification	Died within 7 days	Survived more than									
				1 week	1 month	3 months	6 months	9 months	1 year	1½ years	2 years	3 years	4 years
Pulmonary ..	5	3	1	40	35	24	16	15	14	10	7	3	3
Non-Pulmonary	2	1	1	3	3	2	2	2	1	1	1	1	1

Deaths from Tuberculosis, Influenza, and other Respiratory Diseases, 1921-1925.

Year.	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Tuberculosis, all forms.	Influenza.	Other Respiratory diseases.
1921	46	22	68	18	105
1922	50	14	64	55	136
1923	40	14	54	7	89
1924	49	20	69	23	115
1925	49	7	56	21	100

VENEREAL DISEASES.

Since the year 1919 the scheme of the Council for the diagnosis and treatment of venereal diseases has comprised the following provisions :—

(1) Arrangements whereby medical practitioners may obtain outfits for the collection of pathological specimens, and facilities for obtaining pathological reports upon specimens, from an infected patient or one suspected of infection with venereal disease.

(2) The free supply of salvarsan substitutes to such medical practitioners as are entitled to receive them under Section 2 of the L.G.B. Circular of the 29th August, 1916.

(3) A treatment centre, which is provided at the Cumberland Infirmary by agreement between the Infirmary Committee and the Joint Committee of the City and Cumberland County Councils, for use for the diagnosis and treatment of venereal diseases, which is in charge of a specialist medical officer, and provides the necessary nursing assistance and a male orderly, and in connection with which an emergency bed or beds are available, if necessary.

Residential treatment has also been approved and has been provided at the Hope Hospital, Leeds, in a few instances in which females suffering from venereal diseases have been found to be in a highly infective and dangerous condition.

During the past five years certain alterations have been carried out by the two Councils in connection with these premises, so as to bring them more up to date, as a result of which the facilities are now adequate, and there appears to be no need for further extension or provision at the moment.

Local members of the medical profession take advantage of this clinic, and there exists an agreeable co-operation between them and the specialist officer.

So far as the City Council is concerned, information as to the facilities for diagnosis and treatment of venereal diseases have from time to time been brought to the attention of the public by advertisement in the form of large posters throughout the City, and by means of handbills or other informative pamphlets, and also by notices exhibited at the doorway of the offices of the Medical Officer of Health. The posters and pamphlets disclosed the nature and dangers of venereal diseases and the necessity for treatment, together with the situation of the clinic and the hours of attendance of the specialist officer, and a large number of infected persons have shown a readiness to avail themselves of the facilities offered.

In October 1921, some additional propaganda work was undertaken. This was principally effected by a male representative of the National Council for Combating Venereal Diseases, and comprised one public meeting for men and addresses to workmen at several of the largest works in the City. At each of the works a member of the firm or other representative acted as chairman. The public meeting was well attended, and the impression was gained that the addresses given at the various works were appreciated.

Provision is made for irrigation in the case of gonorrhœa in males during the intervals between clinics, under the supervision of an experienced male orderly; but with regard to irrigation in the case of females, this is carried out under the supervision of the specialist officer himself on any of the three days of the week on which he is in attendance.

Medical practitioners in the area were made fully aware of the Council's scheme at its inception, and, from time to time, have been informed of the facilities provided for the diagnosis and treatment of venereal diseases, and can at any time obtain information as to these arrangements by enquiry at the offices of the Medical Officer of Health, or from the specialist officer himself, or from the members of the staff and other officers of the Cumberland Infirmary.

5 medical practitioners in the area are entitled to receive free supplies of arsenobenzol compounds, to whom these have been supplied for the treatment of 4 cases.

With regard to the examination of pathological material, in addition to the figures in the following table 21 specimens for Wassermann re-action were sent on behalf of medical practitioners to the Public Health Laboratory, Manchester.

No action has been taken in the area under the Venereal Diseases Act, 1917.

During the year 196 persons residing in Carlisle, 132 of whom were males and 64 females, were under treatment or observation at the Clinic at the Cumberland Infirmary. This is a decrease of 7 persons upon the figure for the previous year.

97 new patients attended for the first time, as compared with 118 for the previous year.

69 patients were found to be suffering from syphilis, 6 from non-syphilitic chancre, 98 from gonorrhœa, and 23 from conditions other than venereal disease.

1423 attendances were made by these patients, an increase of 188 on the figure for the previous year. In addition, 1627 attendances were made by patients for intermediate treatment by irrigation, and 298 doses of arsenobenzol compounds were administered to patients.

Clinics.

Clinics were held on the same days and at the same hours as in the previous year, viz. :—for women and children on Mondays at 2-30 p.m. and Thursdays at 5-30 p.m. The male clinics for syphilis were held on Wednesdays at 2-30 p.m. and Thursdays at 6 p.m., and the male clinics for gonorrhœa on Wednesdays at 6 p.m.

New cases were seen at any of the clinics.

Return relating to all persons resident in the City of Carlisle who were treated at the Treatment Centre at the Cumberland Infirmary during the year ended the 31st December, 1925.

	Syphilis.		Soft Chancre.		Gonorrhoea.		Other than Venereal.		Total.
	M	F	M	F	M	F	M	F	
1. Number of cases which— (a) at the beginning of the year under report were under treatment or observation for (b) had been marked off in a previous year as having ceased to attend or as transferred to other Centres, and which returned to the Treatment Centre during the year under report suffering from the same infection	18	19	1	...	36	13	...	55	32
Total—Items 1 (a) and 1 (b)	22	21	1	...	41	13	1	65	34
2. (a) Number of cases dealt with at the Treatment Centre during the year for the first time Total—Items 1 (a), 1 (b), and 2 (a)	19	7	4	1	34	10	10	67	30
(b) Number of cases included in Item 2 (a) known to have received previous treatment at other Centres for the same infection	41	28	5	1	75	23	11	132	64
3. Number of cases which ceased to attend— (a) before completing the first course of treatment for (b) after one or more courses, but before completion of treatment for (c) after completion of treatment, but before final tests as to cure of	2	...	...	...	1	...	...	3	...
4. Number of cases transferred to other Treatment Centres after treatment for	2	3	1	...	18	5	...	21	8
5. Number of cases discharged after completion of treatment and observation for	1	7	...	...	...	...	...	1	7
6. Number of cases which, at the end of the year under report, were under treatment or observation for	3	2	...	...	5	2	...	8	4
Total—Items 3, 4, 5 & 6	2	...	...	...	4	1	...	6	1
6. Number of cases which, at the end of the year under report, were under treatment or observation for	5	2	4	...	18	4	...	27	6
Total—Items 3, 4, 5 & 6	28	14	...	1	30	11	...	58	26
7. Out-Patient attendances— (a) For individual attention by the Medical Officer (b) For intermediate treatment, e.g., irrigation, dressings, etc.	41	28	5	1	75	23	...	121	52
Total Attendances	349	210	16	1	645	151	35	1045	378
Aggregate number of "In-patient days" of treatment given:—Nil. Number of doses of Salvarsan-substitute administered in Out-patient Clinic:—295.	4	...	...	...	1613	10	...	1617	10
Total Attendances	353	210	16	1	2258	161	35	2662	388

With regard to the joint scheme of the County Council and the City, during the year a total of 417 persons were treated at the two treatment centres, of whom 234 were seen for the first time, the remainder being carried over from the previous year. 77 of these were found not to be suffering from venereal disease, leaving 340. The figure for 1924 was 348.

In the number of new cases of syphilis (60) there was a decrease of 4, and a decrease of 19 in the new cases of gonorrhœa (92).

Areas in which Patients resided.			New Patients.	Total Attendances.
Carlisle	...	...	97	3,050
Cumberland	...	...	121	1,292
Westmorland	...	...	—	3
Dumfriesshire	...	...	5	139
Northern Ireland	...	...	1	1
London	...	...	2	9
Durham	...	...	2	2
Roxburgh	...	...	1	26
Liverpool	...	...	1	1
Manchester	...	...	2	2
Staffordshire	...	...	1	1
Holland	...	...	1	1
			<hr/> 234	<hr/> 4,527

MATERNITY AND CHILD WELFARE.

During the year 1,075 notifications of birth were received, 1,024 of which related to live births and 51 to still-births. 607 were notified by medical practitioners, 467 by midwives, and 1 was notified through another agency, and in 15 instances failure to notify the birth occurred.

Health Visitors.

The following is a summary of the visits paid by the Corporation Health Visitors:—

Total number of homes visited	...	...	...	...	11,584
Primary visits in connection with the notification of births	...	...	...	...	1,064
Re-visits in connection with the notification of births—					
0—1 year	...	...	...	...	3,855
1—2 years	...	...	...	...	3,176
2—3 years	...	...	...	...	3,019
3—4 years	...	...	...	...	2,674
4—5 years	...	...	...	...	2,070
				—	14,794
Total number of routine visits to children	...	...	...	...	15,858
Visits to children nursed or maintained by persons other than the parents	...	...	...	...	99
Visits to expectant mothers—					
Primary	...	...	...	...	189
Re-visits	...	...	...	...	264
				—	453
Visits in connection with—					
Deaths of children under 1 year	...	...	...	...	74
Ophthalmia Neonatorum	...	...	...	...	30
Diarrhœa	...	...	...	...	88
Bronchitis	...	...	...	...	85
Broncho-pneumonia	...	...	...	...	34
Acute Lobar and Influenzal Pneumonia	...	...	...	...	117
Measles	...	...	...	...	513
Whooping Cough	...	...	...	...	532
Chicken-pox	...	...	...	...	188
Mumps	...	...	...	...	60
Spina Bifida	...	...	...	...	3
Meningitis	...	...	...	...	1
Puerperal Fever	...	...	...	...	11
Phlegmasia Alba Dolens	...	...	...	...	4

Inspection of Midwives.

During January, 21 certified midwives gave notice of intention to practice, and on various dates during the year 8 others notified their intention to practice, making a total of 29. 5 midwives left the City, leaving at the end of the year 24 midwives on the register.

These midwives attended a total of 497 confinements.

No case of puerperal fever occurred in the practice of a midwife.

Notices, in accordance with the rules of the Central Midwives' Board, were received in connection with the following conditions:—

Cases in which a midwife called for the assistance of a medical practitioner	...	...	...	30
Notification of the intention to substitute artificial for breast-feeding	...	...	...	14
Notification of still-births	...	...	...	7
Notification of having laid out a dead body	...	...	...	6
Notification of liability to be a source of infection	...	...	...	2

The circumstances in which medical help was either obtained or advised are given as follows:—

Condition of Mother—

Ante-natal	...	...	...	...	6
Hæmorrhage	...	...	...	4	
Varicose Veins	...	...	...	1	
Abortion	...	...	...	1	
During labour	...	...	...	...	21
Delayed labour	...	...	...	11	
Malpresentation	...	...	...	5	
Retained Secundines	...	...	...	5	
Post-natal	...	...	...	...	2
Hæmorrhage	...	...	...	2	
Condition of Child	...	...	...	...	1
Prematurity	...	...	...	1	

The following conditions are given as the reasons for the substitution of artificial feeding:—

By doctors' orders, on account of—

Debility of mother	...	...	...	1
Mother's milk insufficient	...	...	...	2
No definite reason	...	...	...	2
				—
				5
				—

By midwives, on account of—

Insufficient milk	...	...	...	...	2
Debility of mother	...	...	...	...	1
Condition of Breasts or Nipples	...	...	...	...	2
Disinclination of mother	...	...	...	...	3
Infant nursed out	...	...	...	...	1
					<hr/>
					9
					<hr/>

52 visits, viz., 32 routine and 20 special visits, were made to midwives for the purpose of supervision at their own homes, and their bags, outfits, and registers, have been regularly inspected.

Letters relating to the following matters in connection with the rules of the Central Midwives' Board were written to midwives, viz.:—

Failure to notify a birth	...	...	...	...	1
Failure to notify the birth of a still-born viable child	...	...	...	...	1
Failure to enter records of high temperature	...	...	...	...	2
Entering incorrectly the date of birth in the midwife's register	...	...	...	...	1
Incomplete entries in the midwife's register	...	...	...	...	6
Failure to note in the register the substitution of artificial feeding	...	...	...	...	6
Failure to forward register	...	...	...	...	1
Wrong notification of a child as still-born	...	...	...	...	1

Home Nursing.

Under the arrangement with the Carlisle District Nursing Association the following conditions were attended to by the Nurses of the Association:—

	No. of Cases.			No. of Visits.
Ophthalmia	2	56
Measles	2	39
Pneumonia	1	3
				<hr/>
				98
				<hr/>

Corporation Maternity Home.

162 patients received treatment in this institution, 15 of whom were admitted upon the request of medical practitioners, 3 on the request of practising midwives, and 1 on the request of the Council of Social Service.

2 maternal deaths occurred, 1 from hæmorrhage and 1 from eclampsia.

The following particulars relate to the work of the Maternity Home:—

Remaining in hospital on 31st December, 1924...	6
Number of cases admitted during the year ...	156
	<hr/> 162

Average duration of stay	12.6 days
Number of cases delivered by midwives ...	124
Number of cases delivered by a doctor ...	26
Total number of confinements	150
Number of cases treated ante-natally only	5
Number of cases treated during puerperium only	7

Number of cases in which medical assistance was specially indicated:—

Mothers—

Before labour	22
Albuminuria	4
Malpresentation	8
Pelvic Contraction	5
Varicose Veins	1
Incarcerated Retroverted Gravid Uterus	1
Heart Disease	1
Eclampsia	2
During labour	29
Delayed labour	13
Placenta Prævia	6
Hydrocephalus	1
Malpresentation	3
Accidental Hæmorrhage	5
Prolapse of Cord	1
After labour	31
Rupture of Perineum	19
Raised Temperature	2
Cardiac Disease	3
Anæmia	2
Albuminuria	1
Pyelitis	1
Post Partum Hæmorrhage	1
Mastitis	2

For Infant	...	...	...	...	18
Malformation	...	...	...	2	
Feebleness	...	...	...	3	
Artificial Feeding	...	...	...	8	
Cephalhæmatoma	...	...	...	1	
Ophthalmia	...	...	...	1	
Slight Inflammation of Eyes	...	...	...	3	
Number of Maternal Deaths	...	...	...	2	
Number of Fœtal Deaths	...	...	...	16	
Number of Still-births	...	...	...	13	

Causes—

Accidental Hæmorrhage	...	...	5
Placenta Prævia	...	...	4
Hydrocephalus	...	...	1
Decapitation for Malpresentation...	...	...	1
Prolapse of Cord	...	...	1
Accident to mother	...	...	1

Died before 10 days	3
---------------------	-----	-----	-----	---

Causes—

Prematurity	...	...	1
Ante-Partum Hæmorrhage	...	...	1
Eclampsia	...	...	1

Conditions necessitating the substitution of artificial feeding for breast feeding:—

Insufficient Milk	...	...	3
Mastitis	...	...	2
Anæmia	...	...	2
Cardiac Disease	...	...	2
Pyelitis	...	...	1

Ante-Natal Clinic.

The number of attendances made at the clinic for expectant mothers was 471. Of these, 166 were first visits of new patients.

Among the conditions in which medical attention or advice was given were the following:—Heart disease, pleurisy, anæmia, hyperemesis, dyspepsia, albuminuria, varicose veins, hyperthyroidism, retracted nipples, mastitis, uterine prolapse, pelvic contraction, malpresentation, hæmorrhage, and retroverted gravid uterus.

Infant Consultations.

At the clinics for children up to five years of age, there were 703 attendances, of which 206 were attendances by new cases, and treatment or advice was given in the following conditions:—Malnutrition, injudicious feeding, prematurity, debility, marasmus, diarrhœa, dyspepsia, constipation, teething, worms, hernia, rickets, bronchitis, suspected phthisis, anæmia, eczema, impetigo, urticaria, polypus, boils, blepharitis, conjunctivitis, nystagmus, ophthalmia, otorrhœa, enlarged tonsils, adenoids, phimosis, tongue-tie, cleft palate, talipes, torticollis, mastitis, petit mal, fits, mongolian idiocy, &c.

Voluntary Agency.

BABIES' WELCOMES AND SCHOOLS FOR MOTHERS.

Each of the four centres, viz., West Walls, Botcher-gate, Caldewgate, and Currock, was visited in turn by the Assistant Medical Officer for Maternity and Child Welfare, one centre being visited each week; the mothers who attend are advised, as required, concerning the health of individual children, and are also addressed collectively by the Medical Officer on some matter concerning the health of the mothers or their children.

The following is a general summary of the work of the centres:—

Number of sessions held	...	...	...	163
Attendances of children—				
1st attendances	...	...	...	134
Subsequent attendances	...	...	...	4,389
				—
Aged 0—1 year	...	...	...	1,245
Aged 1—5 years	...	...	...	3,278
			Total	— 4,523
Attendances of mothers—				
1st attendances	...	...	...	114
Subsequent attendances	...	...	...	3,965
			Total	— 4,079

Classes and addresses—

Mothercraft	...	...	...	65
Sewing	...	...	...	3
Hygiene	...	...	...	60
Cooking	...	...	...	11
Total				— 139

HEALTH VISITOR.

Total number of homes visited	...	...	3,638
Primary visits	...	...	363
Re-visits to children—			
0—1 year	...	...	1,728
1—2 years	...	...	955
2—3 years	...	...	742
3—4 years	...	...	736
4—5 years	...	...	736
			— 4,897
Total number of visits to children	...	...	5,260
Visits to expectant mothers—			
Primary	...	...	—
Re-visits	...	...	86
Number of attendances at Babies' Welcomes			121

Free Provision of Milk.

During the year 3,327 gallons of milk were supplied free of cost to 170 families for the purpose, principally, of assisting the feeding of infants, and in a few instances to nursing mothers.

Previous to supplying the milk, careful investigation of the circumstances was made in each instance.

Still-Births.

The number of still-births notified during the year was exactly the same as that during 1924, viz., 51. Of this number, 7 were notified by midwives, concerning which the following particulars are available:—4 were full-time, and 3 premature; of the 4 full-time still-births, 1 of which was illegitimate, 2 were macerated fœtuses, and of the 3 premature still-births no cause beyond prematurity could be ascertained to account for the still-birth. In 2 instances the child had not reached the

period of viability, and therefore the still-birth was not due to be notified, so that excluding these the number of still-births would be 49, or 2 less than in 1924. In 21 instances the cause of the still-birth was unascertainable; in 11 cases, 9 of which were treated in the Maternity Hospital, the cause was ante-partum hæmorrhage, and in the remaining cases the cause was an instrumental delivery or a malpresentation of the child.

The bodies of 40 still-born children were given burial in the Carlisle Cemeteries.

2 only of the still-births were illegitimate.

Table showing certain particulars regarding the 51 still-births.

	Total.	Legitimate.	Illegitimate.	Male.	Female.	Full Time.	8 Months.	7 Months or less.
Maternal Conditions—								
Uræmia	1	1	0	1	0	0	1	0
Ante-partum Hæmorrhage...	13	12	1	8	5	6	6	1
Strain or Accident	5	5	0	4	1	2	1	2
Eclampsia	1	1	0	0	1	1	0	0
Instrumental Delivery	5	4	1	4	1	4	1	0
Malpresentation	3	3	0	2	1	2	1	0
Hydrocephalus	2	2	0	1	1	2	0	0
Prolapse of Cord	1	1	0	1	0	1	0	0
Twins	1	1	0	1	0	0	0	1
Marked Prematurity	6	6	0	1	5	0	5	1
Post-maturity	1	1	0	1	0	1	0	0
No cause ascertained	12	12	0	6	6	12	0	0

Infant Mortality.

The total number of deaths of infants under one year was 90; the number of deaths of residents was 82, which provides a net infant mortality rate of 78.4 per 1,000 of the registered births. Correcting for variations by adopting the method suggested by the Registrar-General, viz., taking as a denominator the sum of 70 per cent.

of the current year's births and 30 per cent. of the births of the previous year, the infant mortality rate for 1925 is 75 per 1,000 births registered. This is the lowest infant mortality rate ever observed in the City.

The number of deaths due to diarrhœa amongst infants up to one year was 6.7 per 1,000 registered births, as compared with 5.4 per 1,000 registered births in 1924, and with 7.6 per 1,000 registered births in 1923. Of these, only 3 occurred in July and August, the period associated with epidemic diarrhœa; the rest were probably terminal diarrhœas associated with some other condition, as they occurred between January and April.

A glance at the table of infant deaths from stated causes will show that 43 deaths, or more than one-half of the total number of infant deaths, were caused by prematurity, congenital and other defects of early infancy, and debility or marasmus. Of the deaths from these causes, 36 occurred before the child was one month old, 28 before the child was one week old, and 10 before the child was one day old. Two of these children were born at a stage of development at which a child is not generally supposed to be viable, and yet they succeeded in living one and three days respectively. 1 mother during the year gave birth to three children, viz., one single and one twin pregnancy; both labours were premature and all three children died. Deaths occurring from the causes detailed above are generally regarded as unpreventable and as constituting an insurmountable obstacle to a further reduction in infant mortality. It is true that the obstacle is serious, and any further substantial reduction in infant mortality cannot occur until it is surmounted, but an attitude of despair regarding the problem is to be deprecated. In a recent article in the British Medical Journal, two prominent medical research workers bring forward evidence to show the profound effect which improper feeding of the mother before her confinement has on the health of the offspring in its early days and on the causation of rickets and catarrhal affections, such as bronchitis, pneumonia, and probably the later development of enlarged tonsils. The same two authorities also suggest that the mortality of children under one month old is also affected by the mode

of feeding of mothers before the confinement. The point regarding catarrhal respiratory affections is important, for in my last annual report it is stated that such diseases accounted for nearly one-third of the infant death rate for that year. During 1925 there were 16 deaths from bronchitis and pneumonia, an improvement on the death-rate from these diseases during 1924, but still they constitute by far the most frequent cause of death next to prematurity and other diseases of very early infancy. It is obvious then that our attention must be closely engaged with the problem of the correct feeding of mothers ante-natally.

The number of deaths from whooping cough and influenza was the same as in 1924, viz., 4 and 1 respectively, and it is well known that a fatal termination in these diseases is often determined by a catarrhal diathesis. There were 7 deaths from diarrhœa, 4 of which occurred during the winter months, and were therefore not the epidemic diarrhœa. There were 2 deaths from tuberculosis and 2 from meningitis, in each case half the number of those registered last year from the same causes.

It will be seen that the mortality rate for bottle-fed children shows a marked decline, since for the years 1919, 1920, and 1921, it was 230, 210, and 229 respectively per 1,000 so fed. This reduction is, I feel sure, a direct tribute to the influence which is being exerted on the mothers by the constantly reiterated instructions on the value of cleanliness in the use of feeding utensils for babies, and on various other points connected with the infant's food and its feeding. The somewhat smaller proportion of children who were breast-fed during the year, and also the slight increase in the mortality rate of breast-fed children are, however, not good features, and I believe they point to the necessity of directing attention to the pre-natal feeding of the mothers.

A point to which attention might be drawn is that the illegitimate death-rate is not as much as half the legitimate death-rate, whereas it is usually twice as high, a condition which, I am of opinion, reflects credit on Health Visitors and others engaged in the supervision and welfare of so-called nurse children.

Infant Mortality,

with deaths from stated causes, at various ages and in various seasons, of children under one year of age.

CAUSE OF DEATH.	AGE.						MONTH.												Total Deaths under One Year.				
	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Weeks & under 3 Months.	3 Months and under 6 Months.	6 Months and under 9 Months.	9 Months and under 12 Months.	January.	February.	March.	April.	May.	June.	July.	August.	September.		October.	November.	December.	
All Causes.	28	3	4	4	39	13	3	10	13	9	11	10	7	5	2	2	4	5	8	7	8	78	
{ Whooping Cough ... Influenza ... Diphtheria ... Syphilis ... Tuberculosis (all forms) Meningitis ... Bronchitis ... Pneumonia (all forms) Enteritis ... Convulsions ...	...	...	...	...	...	...	...	2	2	2	...	1	...	1	...	1	...	...	...	...	...	4
	...	...	...	...	...	...	...	1	1	...	...	1	1	...	...	...	...	...	...	...	...	1
	...	...	...	...	...	1	...	...	2	1	...	...	...	1	...	...	1	...	...	...	...	1
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
	...	...	...	...	...	3	...	1	...	...	...	1	1	...	...	...	1	...	1	...	...	2
	...	...	...	...	...	2	...	3	6	2	5	1	1	...	...	...	1	...	...	...	...	5
	...	...	...	...	...	4	...	2	...	2	1	1	1	...	...	1	2	...	...	...	...	11
	...	...	1	1	1	1	...	...	...	...	...	...	3	2	...	1	...	3	7	4	3	28
	...	3	1	2	2	26	2	2	1	3	3	1	...	1	...	2	1	8
	1	1	1	6	1	1	2	2	...	1	1	2
{ Congenital Defects Other Defects of Early Infancy Atrophy, Debility & Marasmus Accidental Injury Status Lymphaticus	4	...	...	...	2	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	5
	2	...	1	...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Totals	28	3	4	4	39	16	4	10	13	9	12	11	7	5	2	4	4	5	8	7	8	82	

Rates of Mortality among Infants at various ages, and from the principal causes, per 1,000 births.

Year	Nett Infant Mortality Rate.	AGES.					CAUSES.					
		Under 4 Weeks	4 Weeks and under 3 Months	3 Months and under 6 Months	6 Months and under 9 Months	9 Months and under 12 Months	Not Preventable.			Preventable.		
							Premature Birth	Atrophy, Debility & Marasmus	Congenital Malformations and Atelectasis.	Diarrhoea and Enteritis	Lronchitis and Pneumonia	Whooping Cough
1909	123.6	47.9	26.1	20.9	14.8	13.9	21.7	17.4	7.0	20.9	13.1	4.4
1910	109.1	41.9	19.1	21.0	15.7	11.4	28.8	13.1	5.2	12.2	14.8	4.4
1911	145.0	45.0	27.0	27.0	25.2	20.8	18.0	12.6	4.5	37.9	26.1	9.0
1912	102.4	42.0	15.8	16.6	17.5	10.5	15.8	15.8	9.6	9.6	21.9	6.1
1913	127.1	49.8	17.2	27.5	19.0	13.7	28.4	12.9	6.0	19.0	18.0	3.4
1914	122.4	48.0	25.6	21.5	15.7	11.6	19.8	15.7	5.6	20.7	18.2	5.8
1915	144.3	51.2	30.2	26.8	14.3	21.8	30.2	12.6	5.9	15.9	20.1	10.1
1916	101.5	47.1	13.6	16.3	15.4	9.1	27.2	7.3	8.1	17.2	14.5	0.0
1917	106.5	39.4	16.1	23.3	15.2	12.7	20.6	7.2	10.8	24.2	10.7	1.8
1918	126.8	38.7	17.4	26.1	30.0	14.5	22.3	10.6	4.8	14.5	25.2	19.4
1919	107.9	45.9	17.8	18.8	13.1	12.3	19.7	22.5	9.4	13.1	20.6	0.0
1920	80.0	30.2	13.4	19.3	10.5	7.0	16.1	11.9	9.1	8.6	13.3	3.5
1921	105.3	38.2	17.5	23.7	16.8	9.1	11.4	17.5	9.1	22.1	13.7	2.3
1922	81.2	35.5	11.0	14.2	7.9	12.6	17.4	8.7	6.3	5.5	15.8	2.4
1923	82.9	39.7	11.0	7.6	14.3	10.1	29.6	5.0	6.7	7.6	11.8	0.8
1924	95.0	30.5	23.3	10.7	18.8	11.7	17.0	9.9	6.3	5.4	26.9	3.6
1925	78.4	37.3	15.3	3.8	9.6	12.4	26.8	4.8	9.6	6.7	15.3	3.8

Infant Mortality Rates for the various Wards, 1918-1925.

Year	Stanwix & Etterby	Rickergate	Aglionby	Greystone	St. Nicholas	Currock	Denton Holme	St. Cuthbert's	Caldewgate	Newtown & Belle Vue	Carlisle
1918	108.7	141.2	135.4	101.7	94.9	93.8	125.0	193.3	156.2	97.2	126.8
1919	81.6	97.8	123.3	83.9	125.0	65.4	160.6	119.0	115.1	65.8	107.9
1920	46.5	77.5	54.3	100.0	68.6	57.4	81.6	113.2	87.0	78.4	80.0
1921	23.8	150.7	91.7	174.6	86.9	62.0	105.2	62.5	158.4	56.8	105.3
1922	50.8	47.6	84.0	75.7	102.9	90.9	98.7	65.7	78.5	112.5	81.2
1923	163.2	79.6	64.0	82.6	77.5	44.9	73.0	64.1	141.0	107.6	82.9
1924	68.9	96.7	150.0	36.6	81.4	93.4	55.1	130.0	158.8	36.1	95.0
1925	85.1	70.1	66.6	90.9	78.2	37.3	101.5	59.3	97.0	92.7	78.4

Infant Mortality in Relation to the Mode of Feeding.

The following table shows the deaths of infants under one year in relation to the mode of feeding:—

MODE OF FEEDING.	Number so Fed.			Number of Deaths.			Mortality Rate per 1,000 so fed.
	Legitimate.	Illegitimate.	Total.	Legitimate.	Illegitimate.	Total.	
Breast	719	30	749	37	0	37	49.4
Partly Breast and partly Bottle	97	6	103	16	0	16	155.3
Bottle—							
(1) Boat-shaped	133	24	157	5	2	7	44.6
(2) Tube bottle	6	0	6	0	0	0	0.0
Debilitated Infants—							
(1) Spoon-fed	2	0	2	2	0	2	1,000.0
(2) Unable to be fed	21	0	21	21	0	21	1,000.0
No information <i>re</i> feeding	17	2	19	7	1	8	500.0

**Death-rates per 1,000 among infants under 1 year, classified according to the Method of Feeding,
1916—1925.**

Mode of Feeding.	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	14 years.		
											Total No. of Children.	Total No. of Deaths.	Average Mortality Rate.
Total infant mortality rate	101.5	106.5	126.8	107.9	80.0	105.3	81.2	82.9	95.0	78.4	16392	1705	104.0
Mortality rate for breast-fed infants ..	4.43	25.3	49.6	44.2	35.1	39.6	38.4	33.8	55.4	49.4	12789	579	45.3
Mortality rate for infants partly fed on breast and partly on bottle ..	133.3	515.1	122.2	378.4	171.7	407.7	152.0	141.7	181.2	155.3	908	217	239.0
Mortality rate for infants fed by bottle	428.6	324.3	520.4	230.3	209.8	229.2	212.5	117.1	117.6	42.9	1673	544	325.2

Infant Mortality and Rainfall.

Year.	Rainfall in Inches.	Number of days on which rain fell.	Infant Mortality.
1909	33.13	162	123.6
1910	29.64	197	110.0
1911	30.20	181	145.0
1912	30.01	217	102.4
1913	27.53	194	127.1
1914	28.31	201	122.4
1915	28.28	183	144.3
1916	38.97	228	101.5
1917	29.13	176	106.5
1918	33.65	190	126.8
1919	25.21	191	107.9
1920	32.11	211	80.0
1921	29.83	205	105.3
1922	28.55	209	81.2
1923	36.53	231	82.9
1924	35.11	210	95.0
1925	32.17	189	78.4

Illegitimacy.

The number of illegitimate births registered was 56, or 53.6 per 1,000 registered births, being 6.2 per 1,000 greater than the figure for 1924. The number of deaths amongst these children was 2, or 35.7 per 1,000 illegitimate births. The deaths of legitimate children numbered 80, or 80.9 per 1,000 legitimate births. Of the two deaths of illegitimate children, one occurred a few hours after birth, and the other occurred under an anæsthetic. The Health Visitors paid 99 visits to children nursed or maintained by persons other than the parents.

Puerperal Fever.

During the year 4 notifications relating to puerperal fever were received; all the patients recovered. In 2 cases the condition followed instrumental delivery and in another there had been a slight perineal tear and the patient subsequently developed a pelvic abscess; in the fourth case there was no abnormality about the confinement.

Ophthalmia Neonatorum.

8 cases of ophthalmia neonatorum occurred during 1925, as compared with 10 in 1924, 12 in 1923, and 22 in 1922.

In 5 instances both eyes were affected, and in the remaining 3 cases only one eye was affected. 5 cases were notified by medical practitioners, 2 by midwives, and 1 by both doctor and midwife. The discharge was purulent in each instance, but in no case was there any permanent damage to the eye.

In connection with this condition the Health Visitors of the Corporation paid 20 visits to affected babies in order to ensure arrangements for appropriate treatment. In one instance a case was found which had not been notified.

In every instance the child remained at home during the treatment, but in one case the child was sent by the medical attendant to the Cumberland Infirmary for the opinion of the Ophthalmic Surgeon, and in another case the child was treated at the Corporation Infant Clinic. In two instances the eyes of the child were treated for the Local Authority by the Nurses of the Nursing Association.

CASES.			Vision un-impaired	Vision impaired	Total Blindness.	Deaths during treatment.	Remarks.
Notified.	Treated.						
	At Home.	In Hospital.					
8	8	Nil.	8	Nil.	Nil.	Nil.	

Infectious Diseases.

The Health Visitors paid 1,285 visits to cases of zymotic diseases, apart from their visits to children suffering from gastro-enteritis, ophthalmia neonatorum, pneumonia, and puerperal fever.

Diarrhœa.

There were 21 deaths from diarrhœa during the year, and the Health Visitors paid 38 visits in connection with cases of diarrhœa and gastro-enteritis.

The following table shows the age incidence:—

Age.					No. of deaths.
0— 1 year	...	...	...	...	7
1— 2 years	...	...	...	...	—
2— 5 years	...	...	...	...	—
5—15 years	...	...	...	...	—
15—25 years	...	...	...	...	1
25—45 years	...	...	...	...	6
45—65 years	...	...	...	...	5
Over 65 years	...	...	...	...	2
					—
					21
					—

Poliomyelitis.

No notification relating to poliomyelitis was received during the year.

Deaths among Children aged 1—5 years.

45 deaths occurred among children aged 1—5 years from causes detailed hereunder:—

Zymotic Diseases	...	...	...	...	13
Influenza	...	...	...	...	2
Pneumonia and Broncho-Pneumonia	...	...	...	...	14
Meningitis	...	...	...	...	4
Other Diseases	...	...	...	...	12
					—
					45
					—

HYGIENE OF PLACES OF PUBLIC ENTERTAINMENT.

The visits made in this connection will be found in the Sanitary Inspector's Report, page 96.

REPORT OF THE VETERINARY INSPECTOR.

During the year 146 newly-purchased cows were examined in the several byres of the City, amongst which the following conditions were found:—

Defective udder	...	...	...	8
Enlargement of udder	...	...	...	1
Inflammation of udder	...	...	...	1
Septicæmia	...	...	...	1
Disease of the lungs	...	...	...	2
Enlarged gland in throat	...	...	...	1
				—
				14
				—

All 14 animals were returned to the sellers.

The bovine animals exposed for sale at the Sands Cattle Market, and also at the Auction Marts, were examined, a total of 53,724 examinations being made.

The Auction Marts were visited each Monday in the year, and 15,913 pigs were examined.

190,530 sheep were also examined during the year.

A total of 3,028 examinations of milk cows were made in the several byres of the City in order to ascertain the presence of disease likely to affect the milk supply, in the course of which the following conditions were found:—

Gastric derangement	...	...	...	8
Milk fever	...	...	...	3
Chill	...	...	...	1
Defective udder	...	...	...	3
Septicæmia	...	...	...	2
Abortion	...	...	...	2
				<hr/>
				19
				<hr/>

The milk from these 19 animals was destroyed until convalescence was established.

Two cows were found suffering from inflammation of the udder, and samples of milk from these were submitted for microscopical and biological tests. In both instances tubercle bacilli were found. The animals were immediately removed from the byres.

At the request of the Medical Officer of Health I examined a dairy of 7 cows outside the City. 3 animals were of a very poor lot. Samples of milk were submitted for microscopical and biological tests, but tubercle bacilli were not found in any instance.

At the request of the Chief Constable I made a post-mortem examination on a black polled heifer, which had died suddenly in a field within the City boundary. I found the cause of death to be pneumonia, caused by injuries during transit on the railway.

On 1st August I found a milk cow in one of the Auction Marts in an emaciated and diseased condition. I ordered the animal to be removed at once from these premises and the owner took her home.

On 1st November notice was received of the death of a bullock in a field within the City, but I was unable to find any evidence of anthrax.

On 12th December a milk cow at one of the City Marts was found to be affected with chronic disease of the udder. A notice was served upon the owner to remove the animal from the sale yard, and a further notice was sent to the Chief Constable of the county from which area the cow had come.

On 25th October I received notice that a number of pigs were ailing, and on examination found them to be suffering from swine fever. Their condition was communicated by the Police to the Ministry of Agriculture, whose Veterinary Inspector confirmed the diagnosis. There were 61 pigs on the premises, all of which were slaughtered. The post-mortem examinations, which I personally made, showed that 19 were affected with the disease, and the carcasses were destroyed by burning. The whole of the viscera of the 61 pigs was destroyed by burning.

Tuberculosis Order, 1925.

Under this Order, which came into operation on the 1st September, a cow was dealt with at an Auction Mart which showed symptoms of generalised tuberculosis. The necessary notices were served on the owner, authorising her removal to his farm, and the County Authority was notified as to the destination of the animal, which was subsequently dealt with by the County Veterinary Inspector, and slaughtered.

2 other cows dealt with under the provisions of the Order have been previously mentioned.

Animals (Landing from Ireland) Order, 1922.

641 examinations were made of animals detained under the provisions of the above Order.

The Corporation horses, 21 in number (including 1 employed at the Cemetery and 1 in Parks), all of which have been under close observation, have been free from serious illness during the year.

RAINFALL.

Observations taken at the Carlisle Cemetery by Mr. J. T. Charlton.

MONTHS.	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925.		Average for 10 years 1915-1924.
											Rainfall. days on which Rain fell.	Number of days on which Rain fell.	
January	in. 3.17	in. 3.55	in. 1.53	in. 3.13	in. 2.88	in. 4.17	in. 5.01	in. 2.25	in. 1.74	in. 2.77	in. 2.19	15	in. 3.02
February	3.56	3.31	1.13	2.86	1.05	2.61	0.16	2.87	4.08	0.95	4.82	24	2.26
March	1.88	2.14	1.98	0.66	2.35	3.11	3.71	1.31	0.84	1.73	1.27	13	1.98
April	1.91	2.44	2.45	0.50	1.49	2.17	0.86	1.89	2.55	1.81	3.27	18	1.81
May	2.04	2.98	1.91	1.88	1.10	3.48	1.28	1.79	1.98	3.73	3.48	20	2.21
June	1.15	3.30	2.01	0.87	2.66	2.11	0.65	2.98	0.60	1.90	0.40	7	1.82
July	3.80	4.61	1.31	3.73	0.87	4.26	2.44	4.54	2.22	4.63	1.97	8	3.24
August	3.27	2.39	5.64	3.21	2.96	2.50	5.39	2.53	7.42	3.13	3.18	19	3.84
September	1.03	2.06	2.61	7.36	1.81	1.89	2.15	2.92	3.01	3.33	4.08	21	2.82
October	1.25	5.10	4.33	4.00	2.36	1.00	2.56	1.20	5.61	4.13	3.73	19	3.15
November	0.58	4.34	2.83	2.01	2.36	2.02	1.68	0.84	4.06	1.97	1.06	10	2.27
December	4.64	2.75	1.40	3.44	3.32	2.79	3.94	3.43	2.42	5.03	2.72	15	3.32
Totals	28.28	38.97	29.13	33.65	25.21	32.11	29.83	28.55	36.53	35.11	32.17	189	31.74
Total number of days on which Rain fell	183	228	176	190	191	211	205	209	231	210	...	...	203

LIST OF EXISTING CLINICS AND INFANT WELFARE CENTRES IN THE CITY.

Nature of Centre.	Address.	Accommodation.	Provided by.
Maternity and Child Welfare (Post-natal), once weekly	Maternity Hospital, 3 George Street	Waiting, Consulting, and Weighing Rooms	Carlisle Corporation
Maternity and Child Welfare (Ante-natal), once weekly	Do.	Waiting, Consulting, and Dressing Rooms	Do.
Infant Welfare Centre, weekly	West Walls	One Large Room	The Carlisle Mothers' and Babies' Welcome Society
Do.	St. John's Hall, South Street	Two Rooms	Do.
Do.	Caldewgate	One Room	Do.
Do.	Howie Boyd Hall, Currock	Two Rooms	Do.
School Clinic, Minor Ailments, daily	2 George Street	Three Rooms	Carlisle Corporation
Do. Dental, twice weekly	Do.	Two Rooms	Do.
Do. Special Ophthalmic Examinations, weekly	Do.	Two Rooms and Dark Room	Do.
Do. X-Ray, weekly	Do.	Two Rooms	Do.
Tuberculosis Clinics, four times weekly	1 George Street	Four Rooms and Laboratory	Do
Veneral Clinic, five sessions weekly and intermediate treatment	Cumberland Infirmary	Three Rooms	Jointly by Carlisle Corporation and the Cumberland County Council

The following Acts, Bye-laws, and Regulations are in force in the district, and were adopted on the dates mentioned:—

Bye-laws with respect to New Streets and Buildings under the Public Health Act, 1875	... ..	13th Oct., 1885
Regulations under the Contagious Diseases (Animals) Act, 1886, and the Dairies, Cowsheds, and Milkshops Order of 1885	... ..	16th July, 1889
The Infectious Diseases (Prevention) Act, 1890	... ..	10th March, 1891
The Public Health Acts (Amendment) Act, 1890	... ..	10th March, 1891
Bye-laws for regulating the Public Pleasure and Recreation Grounds, made in pursuance of the Public Health Act, 1875	... ..	14th Feb., 1893
Bye-laws with respect to Common Lodging-houses, made in pursuance of Section 80 of the Public Health Act, 1875	... ..	15th Aug., 1893
Bye-laws relating to the conveyance of carcasses of dead animals through the streets	... ..	8th Jan., 1895
Bye-laws for regulating the Carlisle Public Slaughter-houses under the Public Health Act, 1875	... ..	12th May, 1896
Bye-laws made for regulating the carrying on of offensive trades, in pursuance of Section 113 of the Public Health Act, 1875	... ..	9th March, 1897
Baths and Wash-houses Acts	... ..	9th July, 1901
Measles Regulations, 1923	... ..	1st Jan., 1924

Chief Inspector's Annual Report.

To the Chairman and Members of the Health Committee.

Ladies and Gentlemen,

I have the honour to submit my Annual Report upon the work of the Sanitary Inspectors during the year 1925.

HOUSING.

In February an appeal enquiry by the owner was held locally by the Minister of Health, in respect of certain notices served during the previous year concerning property in Crown Street and Shield's Court, Currock Street, and in connection with which some matters contained in the notices which were served under Section 28 of the Housing Act of 1918 were much modified.

No notices were served under this Section during the year, but certain work required by outstanding notices under the same Section was completed.

Further demolitions and alterations took place in the Crown Street area, and considerable improvement in this part of the City, which has been referred to in former reports, has now been accomplished. The particular block of houses dealt with is bounded by Robert Street, South John Street, Crown Street, and Currock Street.

Prior to this improvement the density of dwellings was approximately 102 to the acre, thus the effect of the alteration has been to reduce this figure to 50 dwellings per acre. This figure does not compare favourably with a street of modern houses occupying, say, 20 to the acre, or the Ministry of Health's new standard of 12 to the acre, but having regard to the former character of the property and its position practically in the centre of the City the results achieved may be regarded as gratifying.

The following particulars show the old conditions and the changes which have taken place:—

Approximate superficial area of district	6,500 sq. yds.
No. of dwellings existing in 1923	... 138
Total inhabitants in 1923	... 613
No. of rooms per family in 1923	... 2.14

No. of inhabitants per room in 1923 ...	3.08
No. of dwellings existing in 1925 ...	68
No. of inhabitants in 1925 ...	338
No. of families removed from this area to Corporation new houses ...	35
No. of families removed from this area to other houses in the City vacated by persons taking up new houses	35
No. of dwellings converted into through houses ...	24
No. of through houses resulting ...	8
No. of tenements totally demolished ...	54

The placing of over 30 families from these congested and insanitary houses, many of which were in courts, into new houses of the garden city type was in the nature of an experiment. Some, however, have made good; others do not appear to have been able to rise to the standard of living demanded, and in some instances have returned to their old surroundings.

The question of housing people who have long been associated with congested and insanitary areas is a matter of education, and will probably only be achieved by easy stages. There is, however, no doubt that the conditions of housing amongst this class of tenant have been improved, for by the removal of those anxious to better their conditions from a small house into a new house, it has been possible to arrange for tenants from the congested areas, in many instances, to enter into the occupancy of the house thus vacated.

During the year forty-two houses were inspected for housing defects, and in nine cases special particulars recorded under the Inspection of District Regulations. Of these none was found to be unfit for human habitation.

Improvements in the case of nineteen houses were effected by owners without legal notices from this Department.

Closing Orders were made in respect of eight dwelling-houses in Duke Street, and Demolition Orders were made later in the year in respect of these eight houses, but owing to the scarcity of houses it had been impossible by the end of the year for any of the tenants to get out.

Three notices determining Closing Orders at Irving's Court (No. 1), Crown Street, were made during the year, the houses having been made satisfactory.

Two inspections of the new Housing Estates of the Corporation, at Wigton Road and Currock, were made during September and October, when particulars were obtained as to the distribution of families, lodgers, and the general sanitary condition of the 354 houses occupied at the time. The following figures give some of the information collected during the above inspections:—

	<i>No. of houses.</i>		<i>No. letting off rooms.</i>		<i>Average occupants per house.</i>
Currock	... 222	...	50	...	5.7
Wigton Road	132	...	5	...	4.7

It will be noticed that on the Wigton Road Estate in only five instances were rooms let off. At Currock conditions were, however, not so satisfactory, as in 50 instances the houses contained more than one family. Seven of the houses were seriously overcrowded, and a number of others were found to be in a dirty condition.

NUISANCES AND DRAINAGE.

The number of complaints received at the office was 134, and your Inspectors discovered in routine inspections a further 655 matters requiring attention. Notices were served to abate nuisances in 343 instances, 6 matters being outstanding at the end of the year.

13 new drains were laid and 6 repaired under the supervision of this Department. 941 inspections of drains were made by the Inspectors, and in 30 cases tests, either chemical, smoke, or water, were applied.

CONVERSION TO WATER CARRIAGE SYSTEM.

Under notice from this Department, 18 insanitary middens and 34 pails were converted into 72 water-closets. These conversions took place at Botcherby (12), Grey-stone (6), and Upperby (34).

VAN DWELLINGS.

Periodical inspections were made to the Sands, where the fairs are held. The vans attending the local fairs were inspected and found to be fairly satisfactory.

The improved sanitation of the ground has contributed to a more satisfactory state of affairs, although

warnings have been given to van dwellers respecting the fouling of the ground and shrubbery adjoining. No infectious disease, other than measles, was reported amongst van dwellers.

COMMON LODGING-HOUSES.

There is only one registered common lodging-house in the City, which is known as Lowther House, Lowther Street, and is owned and controlled by this department. It was conducted in a satisfactory manner.

STABLE PREMISES.

There are approximately 120 stable premises in the City, to which 174 inspections were made.

FACTORIES AND WORKSHOPS.

The number of workshops on the register was 287. Of these, 56 are known as domestic workshops. Included also in this are 69 bakehouses, 3 of which are underground. 2 bakehouses were improved during the year.

The standard of cleanliness and sanitation maintained was good, and there was no overcrowding. 363 visits were paid to factories and workshops. The number of factories is 90.

His Majesty's Inspector of Factories reported sanitary defects at 2 workshops, these being remediable under the Public Health Acts. Successful action was taken in each instance and the Inspector notified accordingly. The matters complained of were neglect of periodical lime-washing.

SMOKE NUISANCES.

Numerous observations have been made with regard to the emission of black smoke from factory chimneys, but on the whole the results may be considered reasonably satisfactory, with the exception of three chimneys which called for special attention. The matter is being taken up, and it is hoped that the nuisance will be minimised.

Several day and evening inspections were made at engine sheds on the north side of the City, the engineer and foremen being interviewed and requested to abate the nuisance. Subsequent observations were made and complaints have latterly been less frequent.

INSPECTION OF MEAT AND OTHER FOODS,

The total amount of meat condemned during the year as unfit for human consumption was 23 tons 16 cwts. 2 qrs. 17 lbs. Details of this and the other miscellaneous foodstuffs found to be unfit for food are reported in the appendix. There is an increase of some 7 $\frac{3}{4}$ tons of meat condemned over the figure for 1924. This is due mainly to the number of diseased carcasses under the Tuberculosis Order, 1925, particularly those of animals slaughtered at the Abattoir by arrangement with the County Council. It was found necessary to take legal proceedings under the Public Health Acts, 1875 and 1890, in respect of 27 dozen unsound eggs sold in the Public Market on October 24th. The vendor was fined £5 and costs. The remainder of the unsound foodstuffs was seized without prosecution at the slaughter-house or surrendered.

SLAUGHTER-HOUSES.

The public slaughter-houses, owned by and under the control of this department, have been well maintained. A table showing the total number and nature of the animals killed is given on page 91.

There are 3 licensed slaughter-houses in the City, 1 each at the L. M. & S. and L. & N. E. Railways, and 1 at Cavaghan & Gray's Bacon Factory, Harraby. The railway slaughter-houses are used exclusively for the slaughter of sheep, mainly for the London markets; whilst Cavaghan & Gray's premises are used for the occasional slaughter of pigs, for bacon curing at their premises.

654 inspections were made to these slaughter-houses.

DAIRIES, COWSHEDS, AND MILKSHOPS.

The number of registered cow-keepers in the City is 22, and the number of sheds used for housing milk cattle 36. They received frequent inspection, 116 visits being paid during the year.

Including 15 milkshops there are 71 purveyors of milk, but only 42 of these reside in the City. 57 inspections were made to milk retailers' premises.

At 1 cowshed an insanitary midden was removed and a milk house added to the dairy.

FRIED FISH AND POTATO SHOPS.

We have 33 of these premises, 1 new shop being registered at Stanwix, and frequent inspections were paid during the year. No nuisance existed at any of the premises, and the trade is carried on satisfactorily. The premises of 2 vendors, previously unsatisfactory, were improved.

ICE CREAM SHOPS.

It is difficult to maintain a complete register of dealers in this commodity, as the business is carried on at restaurants and other premises secondary to other trades. We have 18 such places on our register, and their premises were generally found to be satisfactory.

FOOD AND DRUGS ACTS.

During the year 159 samples were purchased under these Acts, and full particulars of the nature of the samples, together with the results of the analyses, will be found in the appendix. It was found unnecessary to take legal proceedings in respect of any sample, although certain vendors received cautions.

OFFENSIVE TRADES.

The number and description of these trades are:— 2 tripe dressers, 1 gut scraper, 1 tanner, and 1 fellmonger.

At these places the trades were carried on without complaint of nuisance.

URINALS.

The public urinals in the City, which number 19, including the underground lavatories in the Town Hall Square, are under the supervision of this Department, each one being cleansed daily. Three public urinals are to be demolished in public improvements.

REFUSE REMOVAL.

A daily collection of trade refuse is still in operation in the centre of the City, whilst in the remainder of the City domestic refuse is removed twice or thrice weekly, according to the requirements of the

district. The whole of the refuse is disposed of by tipping at five tips, which are under constant supervision.

The S.D. Freighter, purchased in November, 1924, continues to render good service in the matter of refuse collection. The vehicle is a decided improvement on the ordinary open cart; there is less nuisance from dust during loading operations, and owing to the low loading line the task of the men is made much easier.

It is early yet to make any comparison in the cost of collection as between this vehicle and horse labour. At the time of purchase the depreciation was calculated at £100 per annum, but the freighter, so far as one can see, has not depreciated to anything like this extent during the twelve months it has been in use, but of course the longer it is in use the greater the rate of depreciation will be, and it is probable that during the next two or three years the depreciation will be to the extent mentioned.

The benefits to be derived from a more hygienic and efficient method of refuse collection and the advantages gained from an æsthetic and labour-saving point of view are sufficient to justify any slight increase in cost over that of the horse-drawn vehicle.

The garbage from the public slaughter-houses was also disposed of by tipping, and amounted to 601 loads.

During the year 20,329 loads of refuse were disposed of by tipping (trade refuse carted privately, excluded).

DEPOT.

The stud of horses at the Dépôt, Boustead's Grassing, numbers 19. Part of the stud is engaged on house refuse removal and part on scavenging, &c. During 1925, 5 horses were bought, 3 sold, and 2 destroyed.

SHOPS ACTS.

The number of inspections made with the object of enforcing these Acts was 1,744. Many verbal cautions

were given respecting closing, holidays, &c., and 4 shopkeepers were prosecuted for keeping open after closing hours under the Shops (Early Closing) Act.

INFECTIOUS DISEASE AND DISINFECTION.

Your Inspectors investigated 413 cases of infectious disease during the year, 203 of which were removed to Hospital. The number and description of articles of bed clothing, &c., disinfected are in the appendix.

RAT REPRESSION.

Numerous visits were made upon complaint of the existence of rats on premises. Where the drains were suspected these were examined and tested and other advice given.

The Corporation pay 2d. for every dead rat caught in the City, and 995 were received during the year for destruction.

DISEASED AND UNSOUND FOOD.

The following table shows the amount of food seized or surrendered as being unfit for human consumption:—

Nature of Food Condemned.					Quantity.			
					Tons.	Cwts.	Qrs.	Lbs.
Beef	...	...	...		22	1	1	6
Mutton	...	...	...	...		14	0	19
Pork	...	...	...	...		13	2	18
Veal	...	...	...	...		7	2	2
Total					23	16	2	17
Tinned Meats	...	...	...	...	36 lbs.			
Plums	...	...	...	...	4 baskets			
Kippers	...	...	...	...	19 boxes			

SALE OF FOOD AND DRUGS ACTS.

Table showing articles purchased during the year, with results of analyses and remarks as to action taken thereon.

Article.	No. of Samples.	No. found to be Genuine.	Number Adulterated.	Extent and Form of Adulteration.	Remarks.
Milk ...	46	37	9	<i>a.</i> Milk fat 0·10% below limit <i>b.</i> Non-fatty solids 0·26% below limit <i>c.</i> Milk fat 8·40% below limit <i>d.</i> Non-fatty solids 0·25% below limit Fat 0·25% " " <i>e.</i> Non-fatty solids 0·10% below limit <i>f.</i> Non-fatty solids 0·38% below limit <i>g.</i> Fat 0·10% " " <i>h.</i> Non-fatty solids 0·30% below limit <i>i.</i> Non-fatty solids 0·32% below limit	Vendors cautioned. Samples <i>a</i> and <i>e</i> , <i>c</i> and <i>g</i> , and <i>d</i> and <i>f</i> purchased from same sources
Butter	26	26	...	...
Cheese	7	7	...	..
Cream ..	4	4	...	...
Coffee ...	7	7	...	...
Olive Oil ..	3	3	...	...
Mineral Waters	14	14	...	...
Jams ...	11	11	...	...
Fruits ...	10	10	...	...
Sausages ...	11	11	...	...
Baking Powder	5	5	...	...
Lard ...	6	6	...	...
Meat Pastes	3	3	...	...
Whiskey ...	6	6	...	..
No. of Samples	159				
No. Genuine	...	150			
No. Adulterated	...	...	9		

The following Tables give the number of animals killed annually during the past five years:—

PUBLIC ABATTOIR.

Year.	Beasts.	Sheep and Lambs.	Calves.	Pigs.	Total.
1921	3,135	15,566	545	3,625	22,871
1922	3,512	16,294	518	4,711	25,035
1923	4,028	13,249	768	4,644	22,689
1924	4,106	14,385	436	5,896	24,823
1925	4,343	13,814	372	5,775	24,404

L.M. & S. RAILWAY SLAUGHTER-HOUSE.

1921	...	31,301	...	...	31,301
1922	...	40,790	...	...	40,790
1923	...	26,121	...	...	26,121
1924	...	39,427	...	...	39,427
1925	...	48,279	...	...	48,279

L. & N.E. RAILWAY SLAUGHTER-HOUSE.

1921	...	43,366	...	...	43,366
1922	...	55,926	...	...	55,926
1923	...	39,897	...	...	39,897
1924	...	64,811	...	...	64,811
1925	...	79,906	...	...	79,906

REFUSE REMOVAL.

Number of Loads of House Refuse removed to Tips	...	...	...	20,329
,, Loads of Slaughter-house Garbage				601

DISINFECTION.

Number of Cases of Infectious Diseases Investi- gated	...	...	...	413
,, Cases of Infectious Disease removed to Hospital	...	...	...	203
,, Mattresses and Beds Disinfected	...	...	...	116
,, Bolsters and Covers	...	...	...	70
,, Pillows and Covers	...	...	...	315
,, Blankets	...	...	...	351
,, Quilts	...	...	...	124
,, Miscellaneous Articles	...	...	...	234
,, Houses Disinfected	...	...	...	341

FACTORIES, WORKSHOPS, WORKPLACES, AND HOMEWORK.

1.—Inspection of Factories, Workshops, & Workplaces.

Including Inspections made by Sanitary Inspectors.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions
FACTORIES (Including Factory Laundries)	26	Nil	Nil
WORKSHOPS (Including Workshop Laundries)	337	Nil	Nil
WORKPLACES (Other than Outworkers' premises included in Part 3 of this Report)			
TOTAL	363	Nil	Nil

3.—Home Work.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.					
	Lists received from Employers.					
	Sending twice in the year.			Sending once in the year.		
	Lists.	Outworkers.		Lists.	Outworkers.	
		Con- tractors.	Work- men.		Con- tractors.	Work- men.
Wearing apparel— Making, &c.	2	..	...	1	...	..
Cleaning and Washing . . . . .	...	..	...	...	..	..
Total	2	...	...	1	...	...

2.—Defects found in Factories, Workshops, and Workplaces.

Particulars.	Number of Defects.			Number of Pro-secutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :—</i>				
Want of cleanliness	23	23	...	...
Want of ventilation	2	2	...	..
Overcrowding... ..	...	...	...	...
Want of drainage of floors ...	...	...	...	...
Other nuisances	8	8	..	...
Sanitary accommodation :—				
{ Insufficient ... ..	...	...	...	...
{ Unsuitable or defective	...	...	...	..
{ Not separate for sexes	...	...	...	..
<i>Offences under the Factory and Workshop Acts :—</i>				
Illegal occupation of under-ground bakehouse (s. 101)...	...	..	...	..
Breach of special sanitary requirements for bakehouses (ss. 97 to 100) ...	...	...	...	...
Other offences (Excluding offences relating to outwork, which are included in Part 3 of this report)	...	...	...	..
Total	33	33	Nil	Nil

4.—Registered Workshops.

Workshops on the Register (s. 131) at the end of the year			Number.
Important classes of workshops, such as workshop bakehouses, may be enumerated here.	Workshops		162
	Domestic Workshops ...		56
	Bakehouses		69
	Total number of workshops on Register ...		287

5.—Other Matters.

Class.	Number.
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Acts (s. 133, 1901) ... ..	..
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory & Workshop Acts (s. 5, 1901) :—	
Notified by H.M. Inspector ... ..	...
Reports (of action taken) sent to H.M. Inspector	2
Other ... ..	...
Underground Bakehouses (s. 101) —	
In use at the end of the year	3

6.—Classified List of Workshops.

Business.	No.	Business.	No.
Millinery	20	Hand-weavers	2
Tailoring	29	Fishing Tackle	2
Sugar Boiling	2	Stocking Knitting... ..	1
Cycle Repairing	9	Scale Repairers	2
Dressmaking	25	Picture Framing	2
Bakehouses	69	Photography	4
Boot Repairing, Cloggers ...	46	Tripe Dressing	2
Saddlery	6	Chocolate Making	1
Meat Preparation	28	Marine Dealers	4
Watch Makers, Jewellers ...	16	Gut Scraper	1
Upholstering	3	Fellmonger	1
Coopers	3	Tanner	1
Basket Making	2	Rudd Maker	1
Umbrella Repairing	1	Wagon Sheet Repairer ...	1
Taxidermist	1		
Tinsmiths	2	Total	287

**TABULATED LIST OF WORKS EXECUTED
DURING 1925 AS A RESULT OF NOTICES
SERVED UNDER THE HOUSING ACTS.**

Particulars of Work.	Under Sec. 28, Housing, &c., Act, 1919.
	No. of Houses.
Walls Plastered or Re-plastered	10
Flagged or Boarded Floors Re-laid or Repaired	9
Windows provided, or Overhauled and made to Open	2
Roofs made Watertight... ..	6
Eaves and Down Spouting made Watertight ...	8
External Walls Pointed	4
Door Jambs, Window Sills, Heads, and Plinths Faced Up in Cement	4
Doors and Internal Woodwork Repaired ...	1
Handrails to Stairs provided	3
Cooking Ranges Re-set or Repaired	1
New „ provided	3
Ventilated Food Stores provided	4
Slop-sinks provided, with Trapped Waste-pipes, complete	8
Water Supply laid on to above	8
Drains, New or Repaired	9
	Number
Yards Paved or Re-paved	3
Common Passages or Staircases Re-plastered and Repaired	2
New Water-Closets provided	5
New Wash-houses provided	4
Wash-houses Repaired	2

SUMMARY OF SANITARY WORK PERFORMED IN CONNECTION WITH INSPECTION OF DISTRICT.

Nature of Inspections.	Number of visits paid.
HOUSES—	
Houses inspected under Housing Acts ...	1208
Houses inspected in accordance with the Housing (Inspection of District) Regulations, 1910...	9
Houses inspected under the Public Health Act, 1875 ...	5142
Houses inspected, special inquiry ...	62
Visits <i>re</i> Infectious Diseases ...	1077
Drains Inspected ...	1036
„ Tested ...	30
Common Lodging-houses inspected ...	12
Nuisances from Fowls and Animals...	10
Common Yards, Courts, & Alleys inspected ...	7248
Temporary or movable dwellings inspected ...	300
Public Halls, Schools, etc....	18
Complaints investigated ...	134
Nuisances investigated ...	655
TRADE PREMISES—	
Bakehouses ...	261
Laundries ...	4
Cowsheds ...	116
Milkshops ...	57
Ice-Cream Shops ...	42
Fried Fish Shops ...	105
Meat Preparation Premises ...	48
Slaughter-houses ...	654
Markets ...	116
Factories ...	26
Workshops and Workplaces ...	337
Stables ...	174
Shops Act Inspections ...	1744
Chimneys observed (smoke nuisances) ...	18
Refuse Tips ...	138
Water samples taken for analysis ...	8
Visits <i>re</i> Rats and Mice Destruction Order ...	56
Miscellaneous inspections ...	1915
Notices served to abate Nuisances ..	343
„ complied with ...	339

HOUSING WORKS DONE BY NOTICES UNDER THE PUBLIC HEALTH ACTS.

Walls, Damp and Defective, Remedied ...	...	10
Roofs Repaired ...	...	18
Yards Paved and Repaired ...	...	7
Ceilings Repaired ...	...	5
Abatement of Nuisances caused by Animals and Birds ...	...
Sink Provided ...	...	1
Mill Race Cleansed ...	...	2
Washhouses Repaired ...	...	6
Firegrate and Oven Repaired ...	...	1
Chimney Stacks Repaired ...	...	10
Floors Repaired ...	...	5
Defective Outbuildings Repaired ...	...	5
New Water-closets Provided ...	...	81

I have the honour to be,

Your obedient Servant,

C. W. HILL,

Chief Inspector.

